THE MATERNAL AND PERINATAL COMPLICATIONS ASSOCIATED WITH MECONIUM STAINED AMNIOTIC FLUID IN LOW RISK WOMEN IN LABOUR

A PROSPECTIVE CASE CONTROL STUDY

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE RULES AND REGULATIONS FOR THE MS BRANCH II(OBSTETRICS AND GYNAECOLOGY) EXAMINATION OF THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY TO BE HELD IN APRIL 2015

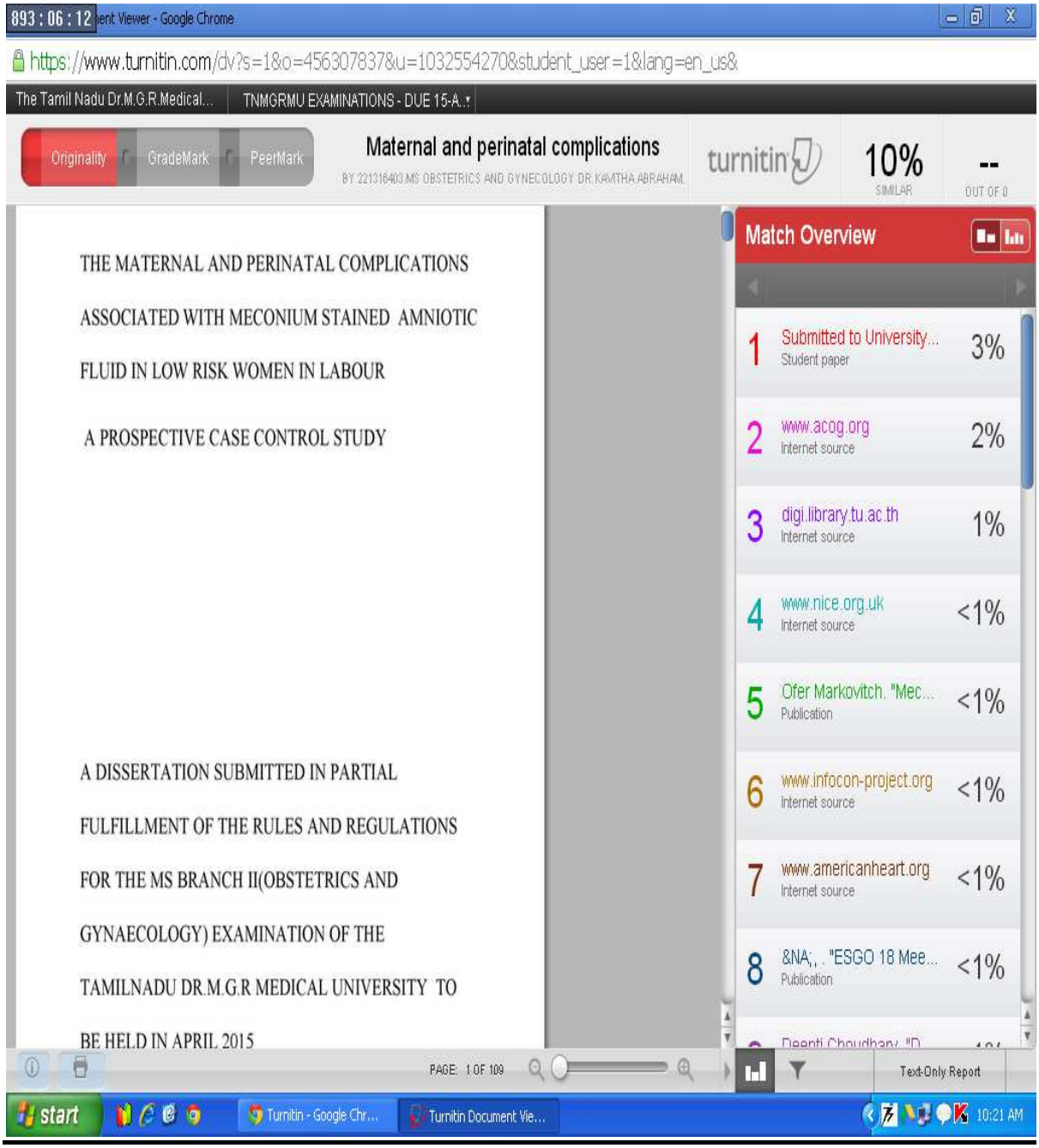
CERTIFICATE

This is to certify that this dissertation entitled **"The maternal and perinatal complications associated with meconium stained amniotic fluid in low risk women in labour- a case control trial"** is a bonafide work done by Dr.Kavitha Abraham in partial fulfilment of the requirement of the MS Branch II(Obstetrics and Gynaecology) examination of the Tamil Nadu Dr.M.G.R Medical University,Chennai to be held in April 2015.

Signature of the candidate **Signature of the guide**

Signature of the HOD **Signature of the Principal**

TURNITIN ORIGINALITY CERTIFICATE



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January 27, 2014

Dr. Kavitha Abraham
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Sub: **Fluid Research grant project:**
To study the maternal and perinatal complications associated with meconium stained amniotic fluid in low risk women in labour.
Dr. Kavitha Abraham, PG Registrar, Obstetrics and Gynaecology, Unit 3,
Dr. Jessie Lionel, Dr. Elsy Thomas, Obstetrics and Gynaecology.

Ref: IRB Min No: 8593 [OBSERVE] dated 04.12.2013

Dear Dr. Kavitha Abraham,

The Institutional Review Board (Blue, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project entitled "To study the maternal and perinatal complications associated with meconium stained amniotic fluid in low risk women in labour." on December 4th, 2013.

The Committees reviewed the following documents:

1. IRB application format
2. Curriculum Vitae' Drs. Kavitha Abraham, Jessie Lionel, Elsy Thomas.
3. Proforma
4. No of documents 1-3

The following Institutional Review Board (Blue, Research & Ethics Committee) members were present at the meeting held on December 4th, 2013in the CREST/SACN Conference Room, Christian Medical College, Bagayam, Vellore 632002.

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Dr. Anuradha Rose	MBBS, MD	Assistant Professor, Community Health, CMCH	Internal, Clinician
Dr. Jayaprakash Muliyil	B. Sc, MBBS, MD, MPH, Dr PH (Epid), DMHC	Retired Professor, Vellore	External, Scientist & Epidemiologist
Mr. Samuel Abraham	MA, PGDBA, PGDPM, M. Phil, BL	Sr. Legal Officer, CMCB.	Internal, Legal Expert
Dr. Denise A. Fleming	B. Sc (Hons), PhD	Honorary Professor, Clinical Pharmacology, CMCH.	Internal, Scientist & Pharmacologist
Dr. Nihal Thomas	MD, MNAMS, DNB(Endo), FRACP(Endo) FRCP(Edin) FRCP (Glasg)	Professor & Head, Endocrinology, Additional Vice Principal (Research), CMCH. Deputy Chairperson, IRB, Member Secretary (Ethics Committee), IEB	Internal, Clinician

We approve the project to be conducted as presented.

The Institutional Ethics Committee expects to be informed about the progress of the project, any **adverse events** occurring in the course of the project, any **amendments in the protocol and the patient information / informed consent**.

IRB Min No: 8595 [OBSERVE] dated 04.12.2013

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On completion of the study you are expected to submit a copy of the **final report**. Respective forms can be downloaded from the following link:
http://172.16.11.136/Research/IRB_Polices.html in the CMC Intranet and in the CMC website link address: http://www.cmch-vellore.edu/static/research/Index.html.

Yours sincerely

Dr. Nihal Thomas
Secretary (Ethics Committee)
Institutional Review Board

Dr. NIHAL THOMAS
SECRETARY - (ETHICS COMMITTEE)
Institutional Review Board
Christian Medical College, Vellore - 632 002

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VELLORE
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Cc: Dr. Jessie Lionel, Obstetrics and Gynaecology, CMC

ACKNOWLEDGEMENTS

This research has truly been a great learning and enriching experience in many ways,right from the formation of the research question to the very end.

My sincere and heartfelt gratitude to my guide, Dr.Jessie Lionel for gently overseeing and guiding me through every step of the study from the beginning to the very end.Without her valuable input, meticulous correction and constant encouragement , I would not have been able to achieve this task.

I am extremely thankful to Dr.Elsy Thomas who has given me the idea to chose this particular topic for my thesis .She was also the inspiration behind me achieving the complete sample size though thesis submission date was near.

I am deeply greatful to Dr.Ruby Jose and Dr.Jiji Mathews for allowing me to recruit patients from their respective units for this study .

I greatly obliged to Dr.Thambu David who took a great effort to guide us through each and every stage of our thesis. My sincere thanks to Mrs. Grace Rebecca for her input with regards to statistical analysis.

A special word of thanks to all the registrars,interns and staff who helped to recruit patients into this study amidst the busy and chaotic labour room. I am very much obliged for the help that I received.

My heartfelt gratitude to all the patients who though in labour consented to be part of the study.

Mrs .Pushpa who helped me to type my tables and Mrs.Usha who helped me with collection of data

To all the consultants and colleagues in Surgery unit I and SICU who gave me a lot of time to write up my thesis.

My parents and sisters for their constant prayer and for being a tower of support always.

My dear husband Dr.Alpha Mathew Kavunkal for helping me throughout the making of my thesis and Anton and Adrien ,who taught me many tricks with the computer.

But most important of all I thank the Lord for taking me by hand and leading me through this research work .

CONTENTS

INTRODUCTION

Meconium stained amniotic fluid is a common phenomenon encountered during labour. In the past it was thought to be an alarming sign. MSAF was supposed to be one of the manifestations of intrauterine fetal hypoxia, hence quick delivery was the rule. So many of them underwent operative vaginal deliveries or LSCS, with associated increased morbidity and mortality. According to neonatal studies most of the babies were found to have transient respiratory distress, but only around 5% developed the grave problem of meconium aspiration .

Recently the etiological significance of meconium as a marker of hypoxia is being disproved. Now the accepted theory is that presence of meconium in amniotic fluid is a normal phenomenon for a term fetus as it only shows adequate gut maturity and motility unless associated with non- reassuring fetal heart patterns. Hence came the thought that was it really necessary to subject all these women to operative deliveries. Given the lower associated perinatal morbidity present guidelines do not recommend for operative interventions unless there is evidence of non- reassuring fetal status.

Strikingly literature review revealed many studies done from 1990 -2003 which have shown significant increase in chorioamnionitis and endomyometritis in the mothers who had MSAF . Though many of them were retrospective and the sample size were small , a statistically significant co relation between MSAF and peripartum maternal infections was evident.The

same was also proven from a large retrospective study done on 43,200 women in 2003.In addition there are histopathological studies showing that a large proportion of chorioamionitis is subclinical in women with MSAF.So this issue really needs more research.

We were also encouraged by the Cochrane review on antibiotic prohylaxis in labour for women with MSAF published in 2010 which showed a significant reduction in the incidence of chorioamnionitis and endomyometritis from ampicillin –sulbactum prophylaxis. The review has identified the need for larger studies before giving a recommendation.

There is ample evidence from literature that chorioamnionitis is a definite risk factor for cerebral palsy in term infants. In addition to this, the infective morbidity to the mother due to MSAF can have adverse effect on the baby.

The questions that we needed an answer are

1. Does the Western statistics apply to the Indian scenario, with more number of deliveries and all the more chances of breach of aseptic precautions, is our Asian population at increased risk.

2. Since no studies on this issue were published after 2003, have our modern obstetric management protocols reduced the risk of infection.

We want to find an answer to the above questions in our study - "THE MATERNAL AND PERINATAL COMPLICATIONS ASSOCIATED WITH MECONIUM STAINED AMNIOTIC FLUID IN LOW RISK WOMEN IN LABOUR"

A PROSPECTIVE CASE CONTROL STUDY.

AIMS AND OBJECTIVES

AIMS

To assess the maternal and perinatal complications associated with meconium stained amniotic fluid in low risk women in labour.

OBJECTIVES

To determine whether meconium stained liquor in women with term gestation observed after spontaneous or artificial ruputure of membranes would result in increased incidence of

1) Chorioamnionitis

2) Endomyometritis

3) Postpartum haemorrhage

4) Retained Placenta

5) Neonatal sepsis

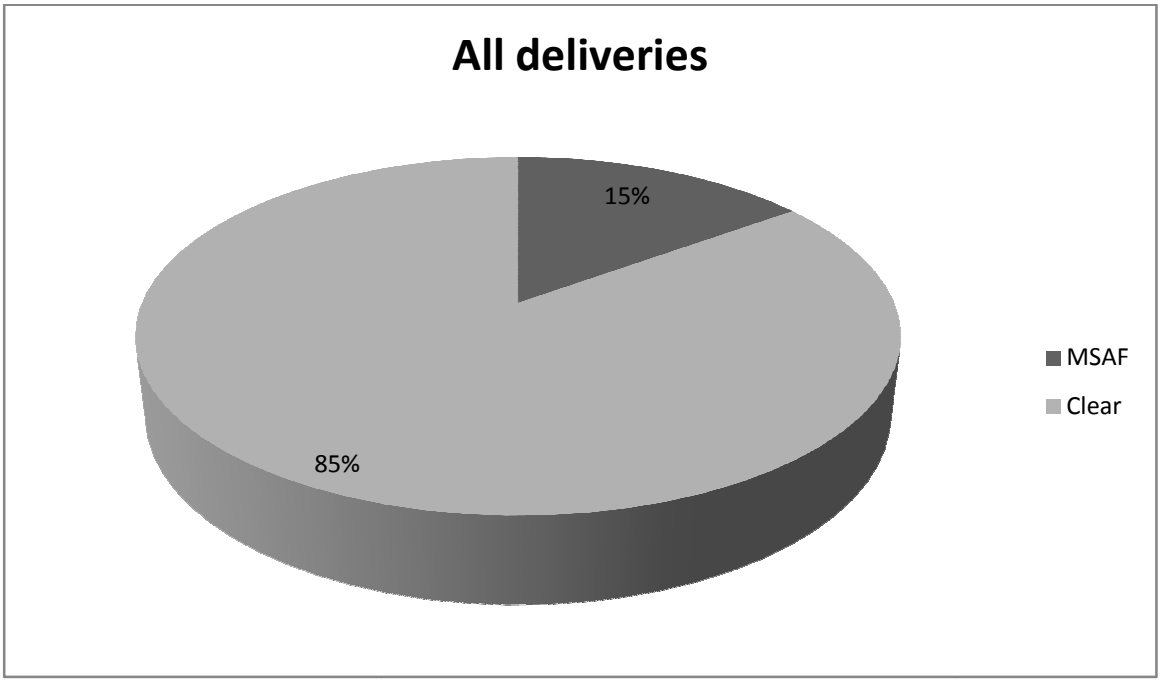
6) Respiratory distress syndrome

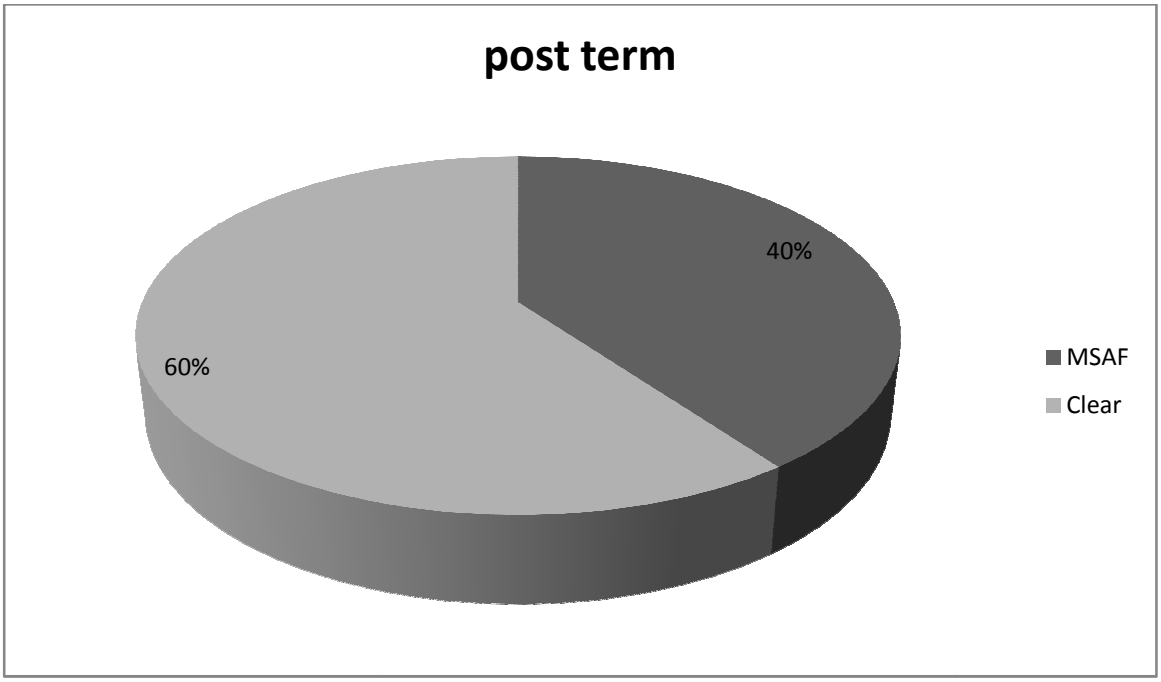
7) Meconium aspiration syndrome

8) Neonatal apgar scores<6 at 1minute

LITERATURE REVIEW

Meconium stained amniotic flud is a common phenomenon in term and postterm pregnancies.7-22% association is reported by most studies (1).It is more noticed in advanced gestations than preterm births. Data suggest it is 4 times more (40%) in pregnancies close to 42 weeks compared to 37 weeks.





Though neonatal outcomes have been studied well but associated maternal morbidity have been scarcely evaluated. The few available literature suggest an increased incidence of chorioamnionitis and endomyometritis in mothers who had MSAF. Many of them date back to more than two decades, mostly retrospective with small sample sizes. Even though the incidence of subclinical chorioamnionitis is much higher than clinical only one study has looked at the same.

AMNIOTIC FLUID DYNAMICS

Amniotic fluid is necessary for normal fetal growth and development. It protects fetus from mechanical trauma and its bacteriostatic properties may help to maintain a sterile

intrauterine environment. It allows for fetal movement and aids the development of lungs and limbs. It also provides the channel for excretion of metabolic byproducts of the fetus (2).

Amniotic fluid volume

Volume of amniotic fluid increases logarithmically during the first half of pregnancy.

8 weeks - 10ml

22 weeks-630ml

28weeks- 770ml

After 30 weeks the increase slows and may remain constant till 36-38 weeks after which it tends to decrease. There is sharp decrease after 40 weeks reaching 515ml at 41 weeks. Subsequently there is 33% decline in amniotic fluid volume per week.

Causes of oligohydramnios

Reduced uteroplacental circulation

Renal agenesis

Maternal dehydration

Production of amniotic fluid

During the first trimester amnioticfluid is isotonic with plasma, though really low in proteins it has high content of sugar and alcohol which are the byproducts of anerobic

metabolism. It originates, most probably, as a transudate across the fetal skin and uterine decidua.In the second half of pregnancy amniotic fluid is mainly composed of urine from the human fetus which makes it quiet different from serum. Rate of urine production is 1000ml/day at term.

Another contributing factor is fetal lung fluid. Rate of secretion is 100mL/dy/kg The net amniotic fluid contribution is only one sixth of that of fetal urine.Other sources include minimal transudates across the fetal skin and umbilical cord, saliva and also water formed by fetal metabolism. As gestation advances osmolality falls by 20-39mOsm/kg and becomes 85-90% of that of serum. At the same time amount of urea, creatinine and uric acid concentrations increase and becomes two to three times higher than that of plasma. The data comes mainly from studies on sheep.

Resorption of amniotic fluid

Main route is fetal swallowing. Near term fetus swallows 190-760ml/dy. Another route is across the membranes into the fetal vessels. Evidence comes from studies of intra amniotic injection of chromium 51. A very meagre amount goes into maternal circulation also.

COMPOSITION OF MECONIUM

The composition of meconium in a term fetus is primarily water (70-80%).The other fetal bowel contents consist of various products of secretion such as mucopolysaccharides, cholesterol and its precursors, proteins, bile acids and salts, glycerophospholipids from the lung, desquamated fetal cells, lanugo scalp hair and vernix. It also contains undigested debri from swallowed amniotic fluid. Biliverdin gives the dark green appearance. It also has pancreatic enzymes, interleukin 8 and phosphlipase A2 (3).

EXPLANATIONS FOR MSAF

Meconium is found in the fetal gut from 10weeks of gestation, but passage of meconium by the fetus is rare before 37 weeks.The incidence of MSAF increases with gestational age and reaches approximately 30% at 40 weeks an 50% at 42 weeks.

MATURITY OF THE GUT

There are many who believe that the presense of meconium in amniotic fluid is a normal phenomenon as it reflects only adequate gastrointestinal maturity at term. More likely so as meconium staining is rarely found in preterm deliveries.

Gut transit time decreases and gut motility increases as period of gestation advances. The lack of development of gut musculature have been proposed as a cause for the reduced incidence of MSAF in the preterm. But this is unlikely as gut motility have been reported before 12 weeks and muscle development must have occurred before this. Immature innervations of the preterm gut seems a more plausible cause. Preterm fetus has fewer myelinated axons and nerve cells in the colon than term fetus (4).

HORMONAL CONTROL OF PASSAGEOF MECONIUM

Intestinal hormone motilin causes contraction of the smooth muscles in the gut wall. Motilin level increases in umbilical venous blood with gestation. Levels are also higher in infants that have passed meconium prenatally and in those with FHR abnormalities in labour. So it is speculated that stress may increase motilin levels and provoke meconium passage by the fetus (4).

REDUCED LIQUOR VOLUME AT TERM

Towards term the amount of amniotic fluid naturaly gets reduced due to placental aging and reduced uteroplacental circulation. Consequently there is reduced liquor volume at term. So another explanation is that MSAF is due to transient episodes of vagal stimulation resulting from cord compression.

HYPOXIA

Fetal hypoxia is an important consideration in the presence of MSAF. Hypoxic insult causes the release of arginine vasopressin (AVP) from fetal pituitary gland. AVP stimulates smooth muscle in the colon to contract, resulting in intra amniotic defaecation (4).

INFECTIONS

Intrauterine infection is another possible explanation as a significant association is found by many researchers. In preterm fetuses it has been proven that in utero infection by Listeria monocytogenes, ureaplasma urealyticum and rotavirus can cause meconium passage. Infected liquor swallowed by the baby is speculated to evoke enteritis in the baby. This in turn may result in frequent anal sphincter relaxation

OBSTETRIC CHOLESTASIS

Incidence of MSAF increases in association with cholestasis of pregnancy.This may be secondary to eleviated levels of bile acids in maternal circulation which crosses the placenta and affects the fetus. Cholestasis of pregnancy increases the bile acid content of the meconium. The same study also found that though UDCA therapy decreases serum bile acid levels in the mother, there is no associated reduction in meconium passage by the fetus (4).

POSSIBLE PATHOGENETIC LINK BETWEEN MSAF AND PREIPARTUMINFECTIONS

The inherent characteristics of amniotic fluid does not support the growth of bacteria (5). Even then several studies have found a strong association between MSAF and peripartum infective morbidty. Literature search have pointed to some plausible explanations.

One theory is that it alters the antibacterial properties of the amniotic fluid to cause gross bacterial overgrowth (1).Meconium may alter the host immune response by inhibiting

phagocytosis and neutrophil oxidative burst (6) thus allowing accelerated growth of microorganisms. (7)

Another suggestion is alternation in zinc –phosphorous ratios in the amniotic fluid as a possible explanation for higher incidence of chorioamnionitis in the presense of MSAF (8).Florman and Teubner have demonstrated that meconium acts like a culture medium and accentuates the growth of bacteria such as E.Coli, L.Monocytogenes and Staph aureus in vitro.(8)

Some others speculate that bacterial infection of the fetal membranes can act as the trigger for the initiation of anal sphincter relaxation and meconium passage by the fetus. Evidence comes from the studies on Listeria monocytogenes and MSAF which have shown that ingestion of infected amnioticfluid would initiate fetal enteritis and increased gastrointestinal motility (9).Though Listerosis is not a common infection at term Romero et al have demonstrated that in women with preterm labour and MSAF , amniotic fluid has a greater content of bacterial endotoxin than those with clear liquor(19.3% vs 3.4%, $P < 0.001$). Meconium may also increase fetal sensitivity to hypoxia and could predispose the fetus for distress during labour.

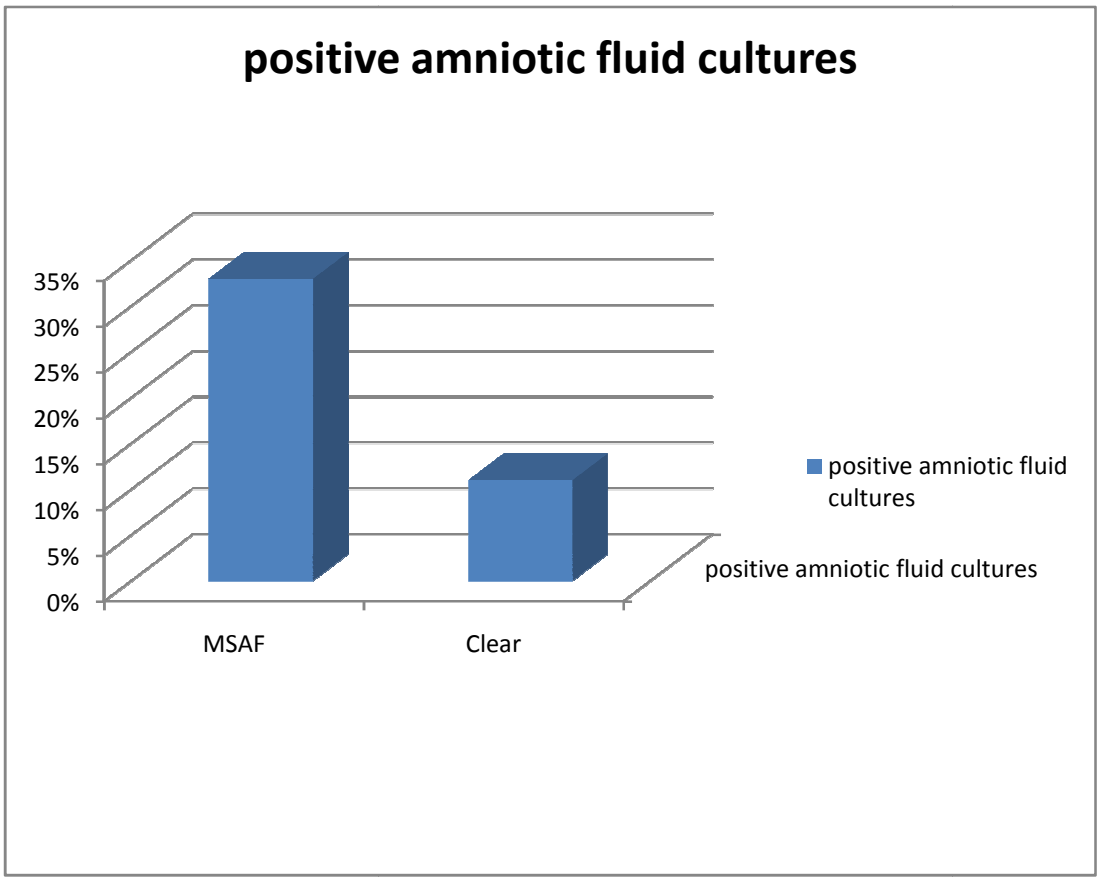
STUDIES ON NEONATES

Studies by Blot et al in 1983 have shown an association between fetal tachycardia and MSAF as a probable sign of fetal infection. Abnormal fetal heart rate patterns were more found associated with MSAF (10).Under current guidelines the presence of meconium in amniotic fluid is taken as a indication for continuous fetal monitoring.

Many recent studies which have looked into the neonatal effects of MSAF and their consequences including RDS ,MAS, more sepsis and ICU admissions. Meconium aspiration results in acidemic damage to lung parenchyma. MAS has the gravest consequence with an incidence of 5% (1/200 of all pregnancies)and associated mortality of 0.05 % (11).Apgar score was found to be <7 at 5minutes in 13% with chronic meconium staining of the placenta compared to 7% in those with acute meconium staining(12).In one third of all cases aspiration occurs leading to long term respiratory compromise. The incidence of MSAF in developed countries has decreased due to ultrasound dating and induction between 41-42 weeks.

STUDIES ON WOMEN WITH PRETERM LABOUR AND MSAF

Romero et al (13) in 1991 started the pioneering work in this fiel . They performed amniocentesis in 707 women with preterm labour and intact membranes.4.2% of these women were found to have meconium stained amniotic fluid. There was significantly increased rate of positive amniotic fluid cultures (33% vs 11% ; p = 0.001;OR - 4.01; 95% confidence interval 1.6 to 9.4) in mothers with MSAF compared to those with clear fluid. Those with MSAF were also found to have failure of tocolysis and delivered a preterm neonate more than patients with clear fluid (83% - 38%).



Two more studies have looked into the same area and have found similar results (14,15) . Women with preterm labour and MSAF have also been found to have increased incidence incidence of clinical chorioamnionitis (16).

Around the same period Markovitch et al did a case control study of 89 women with preterm labour, comparing between those who had MSAF and those who had clear liquor.Clinical as well as histological chorioamnionitis were was found to be significantly high in those with MSAF (6% vs 0% ; 11.2% vs 0%)

STUDIES ON TERM PREGNANCIES WITH MSAF

One of the earliest studies which evaluated maternal infectious morbidity in women with MSAF and full term pregnancy was by Wen et al (17) in 1993.This retrospective study compared between 100 cases of MSAF and 100 controls with clear liquor .The rate of clinical chorioamnionitis was significantly raised in those with MSAF (8%) compared to the controls (2%).

Further on a prospective case control study was done by Shelley Chapman and Patrick Duff (18) which has reconfirmed the association of MSAF and chorioamnonitis . With 100 women in each arm and matching done for gestational age ,parity, age , mode of delivery , duration of rupture of membranes, the incidence of chorioamnionitis among those with MSAF was 10% compared to only 3% in those with clear liquor.(OR – 3.3 ; 95% CI 1.02-10.63).

Supportive evidence comes also from the work of Piper et al (14) in 1998. 936 women in labour were analysed. All of them were tested for vaginal group B streptococcus, bacterial vaginosis and other aerobic organisms. Clinical chorioamnionitis occurred in 17% vs 9% and endomyometritis in 10% vs 6% when women with MSAF were compared to those with clear liquor.

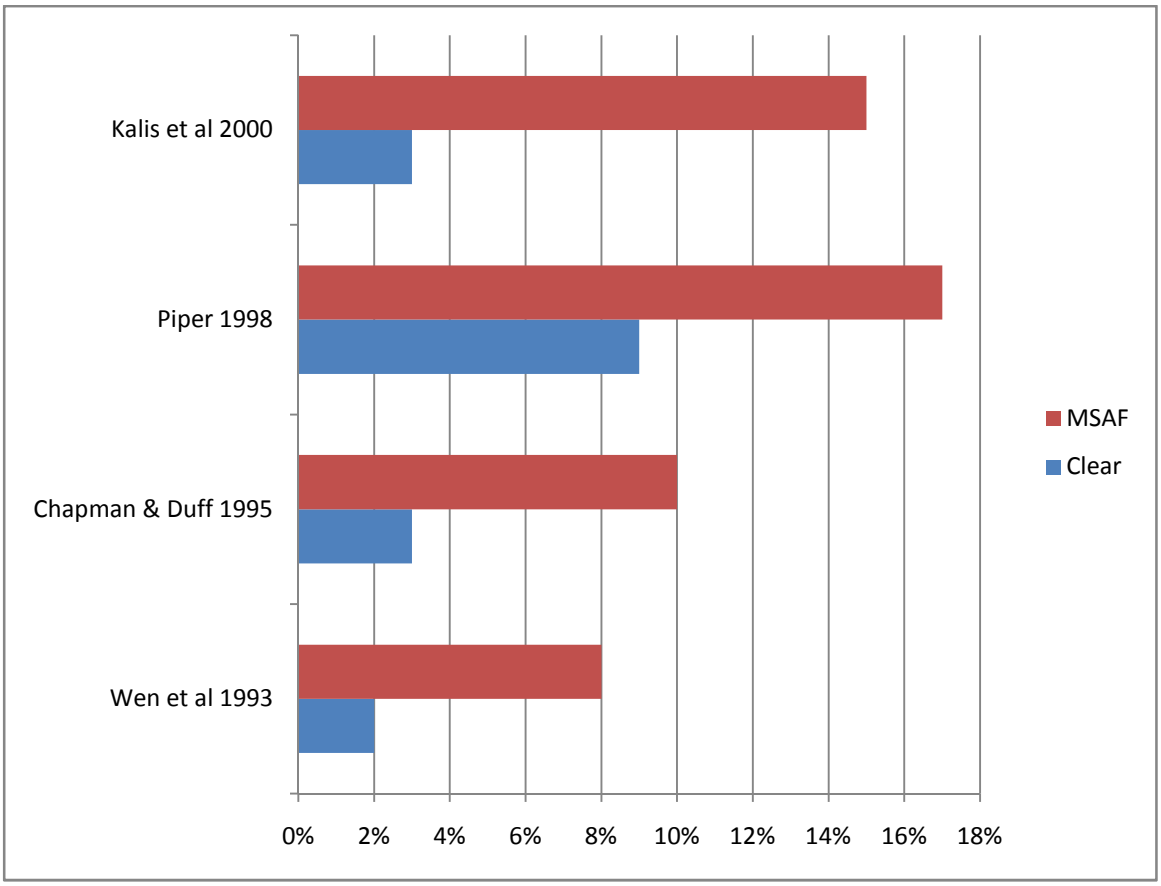
Further evidence comes from the International Multicentric Term Prelabour Rupture of Membranes Study done in 1997 (19) . Of the variables studied meconium was found to be an independent predisposing factor for chorioamnionitis with an odds ratio of 2.28. The odds of risk was similar to that of 5-6 pelvic examinations or duration of active labour from 9-12 hours or caesarean delivery.

Similar studies can also be found towards the beginning of last decade. Kalis et al for Czechoslovakia has reported 15% chorioamnionitis in the presence of

meconium compared to only 3% in controls. Similarly the former had 10% incidence of puerperal endometritis compared to only 3% in the latter.(3)

The largest retrospective study done in 2003 had 43,200 women (20).They found higher incidence of chorioamnionitis (2.3% vs 4.1%, $P<0.001$) endomyometritis(1.0% vs 1.7% ,$P<0.001$) among women with MSAF.

Incidence of chorioamnionitis from previous studies



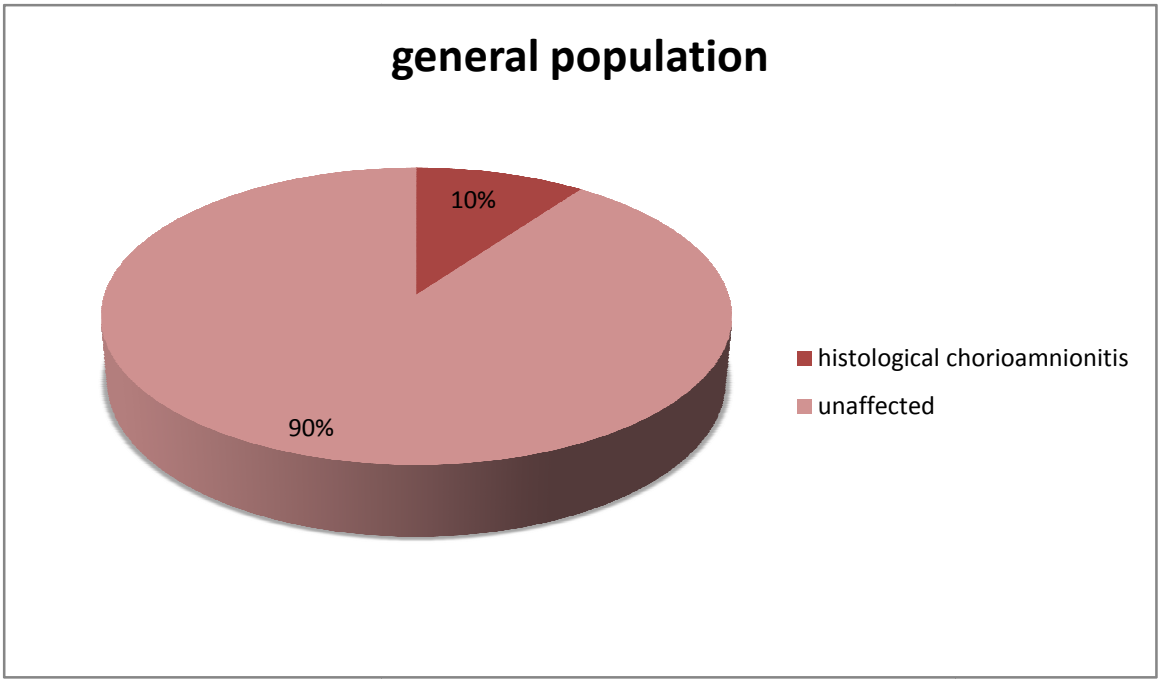
HISTOPATHOLOGICAL AND BIOCHEMICAL EVIDENCE

Microscopic examination of the placenta have found nine different histopathological features to be specifically associated with MSAF .The frequency of villous vascular thrombosis (25.4%), infarcts (38%), acute chorioamnionitis (20%), villous edema (9.1%), and villitis (14.5%) in placentas subjected to chronic meconium exposure. Placentas in acute meconium staining were found to be less likely to show these changes.The number of lesions in the placenta were also found to co relate with the frequency of NICU admissions (12)

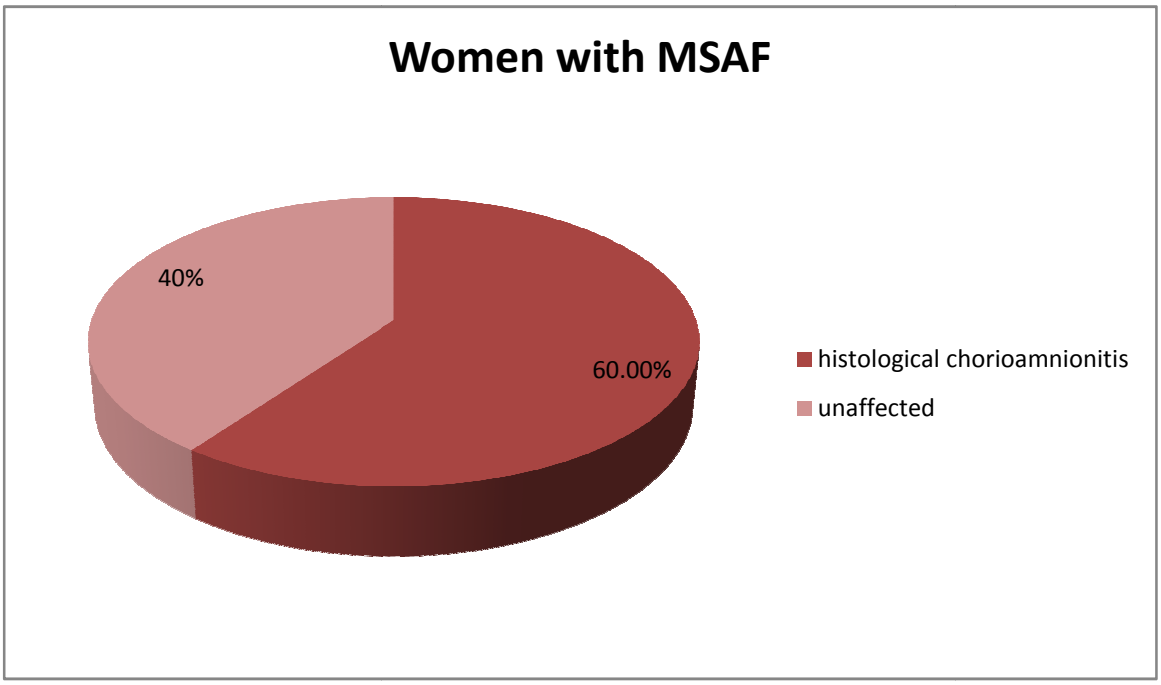
Sumana et al in 2001 (21) have compared 45 mothers with histopathological evidence of chorioamnionitis and funisits with 89 women with normal placental histopathology. The study goes on to explore how many of these women had MSAF .Evidence from the study is that those with pathological

evidence of chorioamnionitis had significantly higher rates of MSAF compared to others (33% vs 10% ,p = 0.001) .Another remarkable finding from this study is that the rate of chorioamnionitis they observed was around 10% compared to an incidence upto 2% given in literature. They have also reviewed the placentas of 24 babies with MSAF, which showed an amazingly high incidence of chorioamnionitis of about 67.5%.

Incidence of clinical chorioamnionitis



Incidence of histopathological chorioamnionitis



Accordingly a vast majority of patients must have had subclinical chorioamnionitis which was unnoticed clinically. Perinatal morbidty was also high in the MSAF group but did not achieve clinical significance.

Given the grave maternal and perinatal morbidity associated with peripartum infections gross under recognition and treatment of the problem needs to be highlighted.

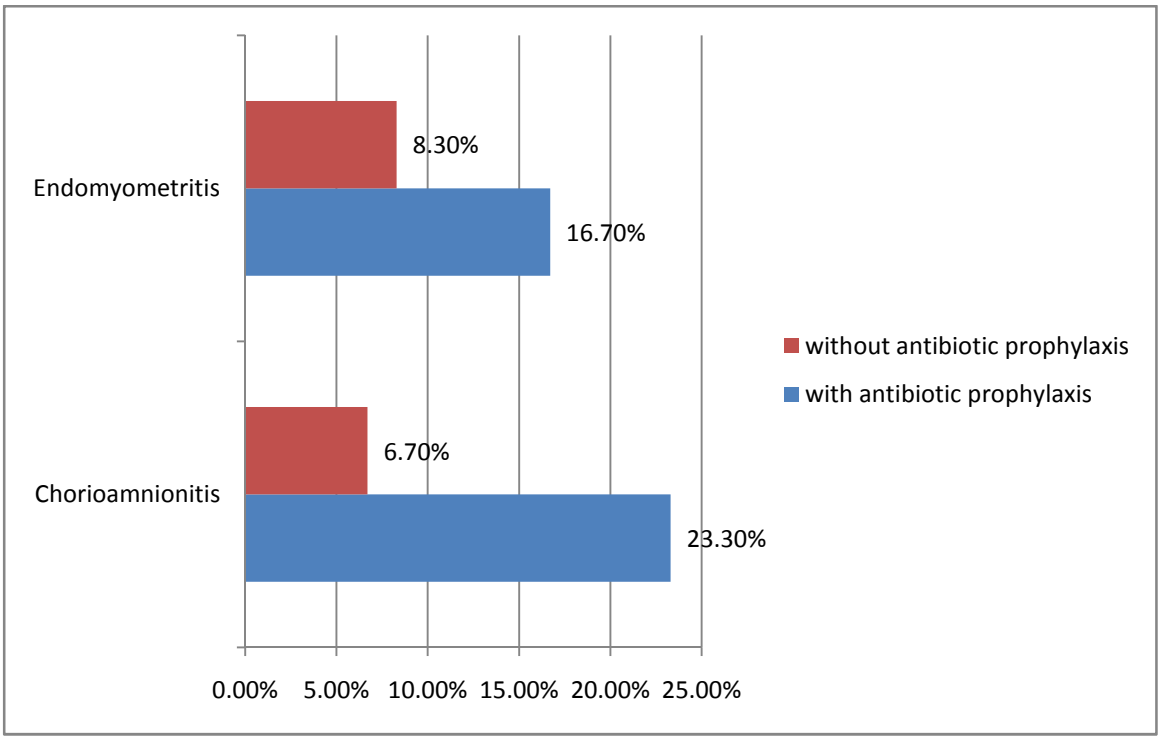
8-iso-prostaglandin F2 alpha is the one of the biochemical markers to be studied in relation to MSAF. It is wellknown as an indicator of oxidative stress

The concentration of the same was found to be profoundly eleviated in the cordblood for women with MSAF compared to those with clear liquor (22) .

INTERVENTIONAL STUDY

Literature review done over the past two decades found only a single study of the above mentioned criteria did in patients with MSAF with the intention of reducing the associated peripartum infective morbidity. This was a randomised double blind trial of ampicillin – sulbactum prophylaxis done by Adair et al In 1996. Women with MSAF were grouped into two groups, one group received normal saline placebo intravenously and the others received ampicillin- sulbactum 6^{th} hourly till delivery. Those who got antibiotics were found to have significantly lower rates of infective morbidity compared to the others (30).

Data from the above study



2010 Cochrane review

This review was done to evaluate the need of antibiotic prophylaxis in labour. The above mentioned study by Adair was the only available study in this regard. The review was done by two review authors independently. They have given the recommendation that antibiotics for MSAF in labour can reduce the incidence of chorioamnionitis. There was no evidence that antibiotics could reduce postpartum endomyometritis, neonatal sepsis and NICUadmissons (30)

Effects of peripartum infective morbidity on the term neonate

Chorioamnionitis is polymicrobial. Various endotoxins are released into the amniotic fluid which can cause umbilical cord vasoconstriction and hypoxia (10). Meconium may exacerbate this process by altering the innate ability of amniotic fluid to resist infections(24). Chorioamnionitis have been implicated as a cause of cerebral palsy in term infants of normal birth weight (25,26).

Maternal consequences of peripartum infective mobidity

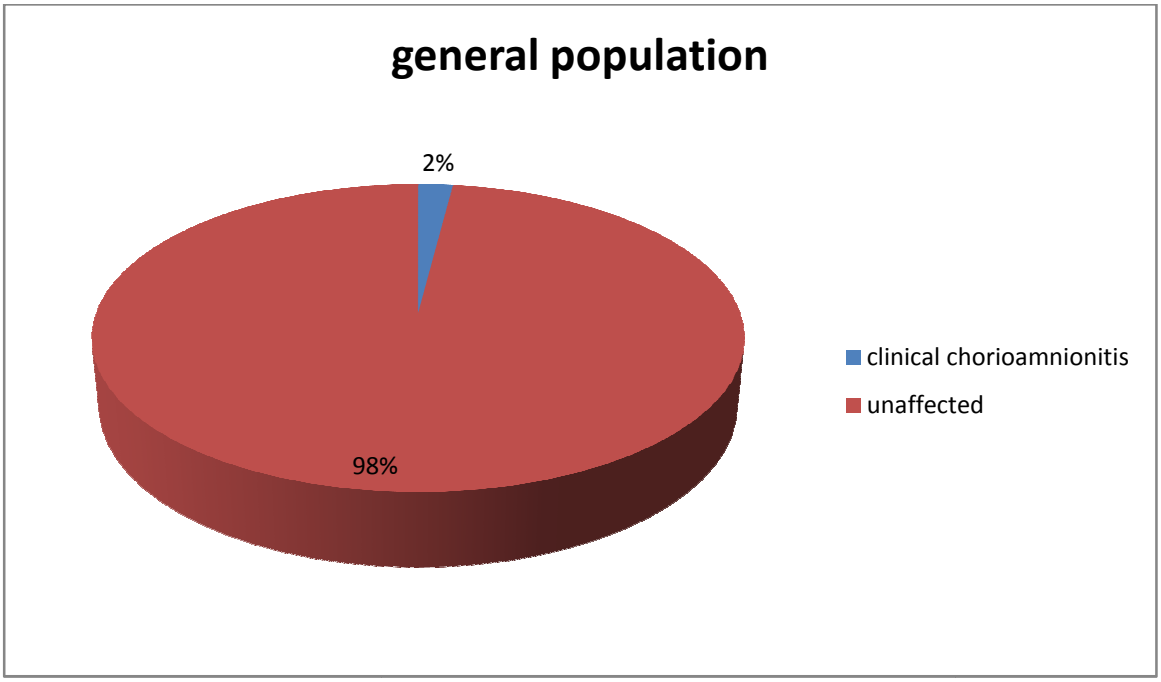
Peripartum infective morbidity, when other localising causes are ruled out, is mostly due to chorioamnionitis and endomyometritis , both of which can have deleterious effects on the mother.

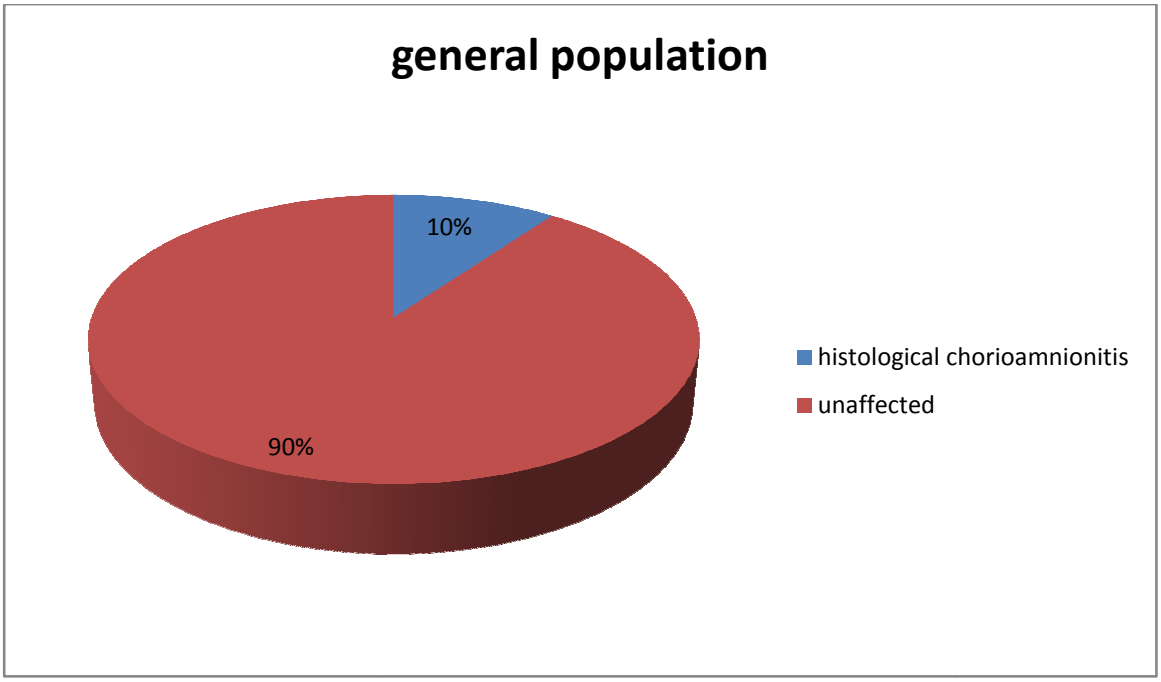
CHORIOAMNIONITIS

It is the inflammation of fetal membranes and is usually a manifestation of intrauterine infection. In occult chorioamnionitis there are no obvious symptoms and signs. It can cause prelabour rupture of membranes and preterm labour. In overt chorioamnionitis, the signs and symptoms are obvious.

Incidence

In general, incidence of clinical chorioamnionitis is estimated to be 0.5-2% (20). But histopathological evidence gives an incidence of 10% (32) .


general population
2%
98%
clinical chorioamnionitis
unaffected


general population
10%
90%
histological chorioamnionitis
unaffected

Pathology

In chorioamnionitis the mononuclear and polynuclear leucocytes of maternal origin infiltrate the chorion. If the cells are found in amnion it is called amnionitis and when they occur in the cord it is funisitis. The cells in amnionitis and funisitis are fetal in origin.

Etiological factors

PROM

Prenatal diagnostic procedures

Encirclage

Bacterial vaginosis

Repeated vaginal examinations

Amnioinfusion

Prolonged labour

Diagnosis

Is mainly based on the presence of the following clinical signs

Fever $\geq 100.4^{\circ}F$

Maternal tachycardia

Fetal tachycardia

Uterine tenderness

Foul smelling amniotic fluid

Maternal Effects

In mothers chorioamnionitis is proven to be an independant risk factor for many complications in labour .The same has been proven by in vitro studies by Montgomery et al (22) in which meconium have been found to inhibit the contractions of umbilical vessel smooth muscles.

Immediate

Preterm labour

Premature rupture of membranes

Dysfunctional labour

More operative interventions

Postpartum haemorrhage

Postpartum infective morbidity

Prolonged hospital stay

Delayed

Secondary postpartum haemorrhage

Anaemia

Subinvolution

Failing lactation

Fetal Effects

It has been linked with grave neonatal outcomes like preterm births with its high perinatal morbidity, neonatal sepsis, cerebral palsy and longer hospital stays(21). Chorioamnionitis and funisitis can directly cause fetal hypoperfusion and hypoxia due to the presence of bacterial endotoxins in the amnioticfluid which inturn can lead to placental and umbilical vasoconstriction(33). Grether and Nelson have suggested a strong association between chorioamnionitis and cerebral palsy in term infants of normal birth weight (25). Neurodevelopmental concerns are increasingly being associated with placental pathology.There is much evidence to argue that placental pathology should be included the investigations for chorioamnionitis (26).

Management

It needs to be individualised based on the etiology and severity. Broad spectrum intravenous antibiotic therapy to cover gram positives, gram negatives and anerobes and expedition of delivery are the two key components of management. Tocolysis is avoided in preterm labour whenever the causal factor is suspected to be chorioamnionitis

ENDOMYOMETRITIS

The placental sight is like a wound anywhere else in the body, exposed to infection during child birth. Infection during the puerperium can manifest as puerperal pyrexia and puerperal sepsis. Puerperal sepsis (endomyometritis) is defined as the infection of the genital tract at any time after the delivery of the fetus till 42 days of puerperium. It used to be a major cause of maternal mortality in the preantibiotic era.It has markedly declined in the last few decades due to the availability of effective antibiotics, better obstetric care and improved general health of women.

Normal vaginal flora in labour

Lactobacilli account for 60-70%

Candida albicans 25%

Staphylococcus albus and aureus

Anerobic streptococci

Bacteroides groups

Escherichia coli

Streptococcus beta hemolyticus (rare)

Clostridium Welchii (rare)

Normally these organisms remain dormant and harmless during a normal vaginal delivery conducted under aseptic conditions inspite of damage to cervicovaginal mucous membrane, conversion of uterine placental site into an open wound and the presence of blood clots.

Predisposing factors

Certain factors may influence the pathogenicity of the vaginal flora.

1.Introduction of organisms from outside during delivery

2.Lowered genital or local host resistance

3.Multiplication of organisms in the devitalised tissues

4.Relative increase in drug resistant organisms

Antepartum factors

Malnutrition

Anaemia

Lower socioeconomic status

Premature rupture of membranes

Medical conditions like uncontrolled diabetes and chronic illness requiring long term steroids or immunosuppressants.

Immuno-suppressive states like HIV, AIDS, patients with renal transplant

Antepartum haemorrhage

Intrapartum and postpartum factors

LSCS is the single most important risk factor for the development of puerperal sepsis. The incidence is 1-3% with vaginal delivery, 5-15% with elective LSCS and 30-35% with emergency LSCS. In high risk patients (diabetic ,anemic) the incidence is even higher. Parametrium can also get involved. Use of prophylactic antibiotics at LSCS reduces the incidence considerably (Level IA evidence).

Repeated vaginal examinations

Prolonged rupture of membranes (>18hours)

Postpartum haemorrhage

Traumatic operative delivery

Intrauterine manipulations like manual removal of placenta

Obstructed labour

Etiology

The organisms responsible are typically those which normally colonize the genital tract and are of low virulence but can cause infection in the presence of above mentioned factors.

Microorganisms causing puerperal sepsis

Aerobes

1.Gram positive bacteria

Beta-hemolytic streptococci (Group A,B,D)

Streptococcus fecalis

Staphylococcus aureus

Enterococci

Gardnerella vaginalis

2.Gram negative intestinal bacilli

E.coli

Poteus mirabilis

Klebsiella pneumoniae

3.Anerobes

Peptococcus

peptostreptococcus

Anerobic streptococci

Bacteroides species

Clostridium species

Mobilincus species

Prevotella species

4.Others

Chlamydia trachomatis

Mycoplasma hominis

Neisseria gonorrhoeae

Mode of infection

Puerperal sepsis is polymicrobial, decidua over the placental site is usually affected. There is sloughing of the decidua with foul smelling vaginal discharge.

Source of infection

Endogenous : Infection is carried from vagina or cervix (anerobic streptococci)

Autogenous : Infection is carried to the genital tract from other body parts ,

directly or through blood

Streptococcus hemolyticus from sore throat , E.coli from bowel and streptococcus albus from abdominal skin are examples.

Exogenous: Infection is contracted from outside sources like hospital bedpan, blankets, attendants etc. Vaginal examination is another cause. Streptococcus beta hemolyticus can be acquired from the throat of maternal and neonatal care providers. Staph.aurues is an important hospital acquired infection.

Spread of infection

From uterus infection may spread directly, hematogenously or through lymphatics into pelvic cellular tissue giving rise to the following complications:

Pelvic peritonitis

Parametrial phlegmon

Pelvic abscess

Septic thrombophlebitis

Septicemia and endotoxic shock

Diagnosis is mainly clinical .The usual signs are

fever $\geq 100.4^{\circ}F$

uterine subinvolution

uterine tenderness

adnexal tenderness

foul smelling vaginal discharge

Puerperal pyrexia is considered to be due to puerperal sepsis unless otherwise proved.

Morbidity and Mortality

Following 48-72 hours of intravenous antibiotic therapy 90% of women will recover. Less than 2% develop serious life threatening complications.

CURRENT MANAGEMENT GUIDELINES FOR MSAF

Meconium in amniotic fluid has been considered as a sign of fetal hypoxia due to subclinical uteroplacental insufficiency. However recent literature tends to disregard the importance of meconium as a sign of fetal asphyxia and is thought to reflect a mature fetal vagal system and a patent gastrointestinal tract.

Classification of MSAF

Meconium stained amniotic fluid is classified as thin and thick according to subjective assessment of the concentration of meconium in amniotic fluid.

PROPHYLATIC AMNIOINFUSION TO DILUTE MECONIUM

ACOG committee opinion 2006 votes against prohylatic amnioinfusion , reasons being (31)

1.Fetus could have meconium below the cords prior to the intervention.

2. The beneficial effect is disproven by two large RCTs (32,33)

3. Reported complications associated with amnioinfusion include uterine hypertonus and rupture, placental abruption, chorioamnionitis, nonreassuring fetal heart rate tracing, maternal pulmonary embolus, and maternal death.

SOGC (Society of Obstetricians and Gynaecologists of Canada) GUIDELINES 2007 and NICE guidelines 2007

MSAF is an indication for continuous electronic fetal monitoring during labour (34).

ACOG COMMITTEE OPINION ON NEONATE CARE 2007

In 2006, the American Academy of Pediatrics and the American Heart Association published new guidelines on neonatal resusscitation . Previously, management of a newborn with meconium-stained amniotic fluid included suctioning of the oropharynx and nasopharynx on the perineum after the delivery of the head but before the delivery of the shoulders (intrapartum suctioning). Current evidence does not support this practice because routine intrapartum suctioning does not prevent or alter the course of meconium aspiration syndrome .

The Committee on Obstetric Practice agrees with the recommendation of the American Academy of Pediatrics and the American Heart Association that all infants with meconium-stained amniotic fluid should no longer routinely receive intrapartum suctioning. If meconium is present and the newborn is depressed, the clinician should intubate the trachea and suction meconium or other aspirated material from beneath the glottis. If the newborn is vigorous, defined as having strong respiratory efforts, good muscle tone, and a heart rate greater than 100 beats per minute, there is no evidence that tracheal suctioning is necessary. Injury to the vocal cords is more likely to occur when attempting to intubate a vigorous newborn(35)

METHODOLOGY

This was a prospective case control study of the maternal and perinatal morbidity associated with meconium stained amniotic fluid in labour. This was done in the labour room of Christian Medical College Vellore, a tertiary referral centre in South India.

The study protocol was reviewed and approved by the institutional review board prior to enrolling patients. Patients were strictly selected according to the inclusion and exclusion criteria mentioned in table 1 and 2.

Informed consent was taken from the eligible women in early labour. All the women who had meconium stained amniotic fluid were screened for eligibility and same number of matching controls were taken.

Inclusion criteria were women with uncomplicated singleton term gestation who had spontaneous or artificial rupture of membranes after admission to our labour room.

1.Inclusion critetria

Uncomplicated pregnancies

Singleton gestation

Cephalic presentation

Meconium stained liquor identified at ROM

Gestational age more than 37 weeks

2.Exclusion criteria

ROM prior to admission to labour room

Those having fever prior to ROM

Malpresentations

Preterm gestation

Multiple gestations

Seropositives and mothers on steroids

IUGR

uncontrolled gestational diabetes, chronic or gestational hypertension

those with cardiac problems, hepatic or renal function impairment .

The study was started in May 2014 and continued till September 2014. Patient recruitment was done in the labour room of Christian Medical College and Hospital, a 2450 bed tertiary level centre.

All the 469 patients who were diagnosed with MSAF during this period were assessed for eligibility, among them 200 cases were chosen. These patients had spontaneous or artificial rupture of membranes after admission to labour room. They were diagnosed with MSAF and were included into the study after strictly following the exclusion criteria. 200 controls were chosen from patients who had clear liquor after rupture of membranes following the same exclusion and inclusion criteria. Matching was done for gestational age, parity, BMI and time of rupture of membranes.

Each patient was managed in labour according to the usual standards followed in the labour room.

There were no changes in protocol throughout the study period.

Baseline demographic data was collected for each patient like age, BMI, gestational age, birth weight and parity.Information regarding time of admission to labour room, time and mode of rupture of membranes , amnioinfusion, number of per vaginal examinations, date and time of delivery , occurrence of chorioamnionitis, total blood loss , need for manual removal of placenta, birth weight and Apgar scores were recorded from the pateint’s antenatal folder. After delivery patient was followed up in the ward till discharge to see if she developed endomyometritis. Neonates were followed up in the ward and NICU till discharge.

The primary and secondary outcomes were as follows:

Primary outcomes

Chorioamnionitis

Endomyometritis

Secondary Outcomes

Maternal

Post partum haemorrhage

Retained placenta

Neonatal outcomes

Sepsis

RDS

MAS

NICU admission

Apgar score <6 at 1 minute

In addition we also made a record of the factors which could act as confounding factors in aetiology of peripartum infections including the duration of rupture of membranes, amnioinfusion , multiple pelvic examinations during the course of labour and mode of delivery. These were separately analysed to ascertain whether they had any significant influence on the course of labour.

Definition of variables

Chorioamnionitis is defined as the presence of any of the following -maternal tachycardia, fetal tachycardia, temperature more than 100.4˚F, uterine tenderness or foul smelling vaginal discharge.

Endomyometritis is defined as postpartum fever >100.4˚F on 2 or more occasions without any other localizing signs.

Post partum haemorrhage is defined as blood loss more than 500ml. Third stage complications such as postpartum haemorrhage (PPH), retained placenta requiring manual removal were also recorded.

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Patients undergoing LSCS for nonprogressive labour was recorded under dysfunctional labour.

Neonatal sepsis was identified by treatment with antibiotics for ≥ 5days .

NICU admissions for complications of MSAF like respiratory distress and meconium aspiration syndrome were recorded.

SAMPLESIZE CALCULATION: Target sample size and rationale

The primary outcome variables of this study is incidence of chorioamnionitis and endomyometritis in women with MSAF. Sample size calculation was based on the study done by Shelley Chapman and Patrick Duff in 1994. This was a retrospective case control study with 100 patients in each arm. The incidence of chorioamnionitis among MSAF patients was 10% compared to only 3% in the control arm. With an alpha error of 5% and power 80 sample size was calculated as follows:

SAMPLE SIZE CALCULATION

Proportion of disease among unexposed = 0.03

Proportion of disease among exposed = 0.099

Relative risk = 3.3

Power = 80

Alpha error = 5

Sided = 2

Required sample size in each group =198

STATISTICAL ANALYSIS

Data entry was done using EPI INFO software with inbuilt quality control audit. The data was analysed using Fischer Exact probability test. Odds ratio and 95%confidence interval were calculated using univariate linear regression analysis. P value < 0.05 is taken as statistically significant association.

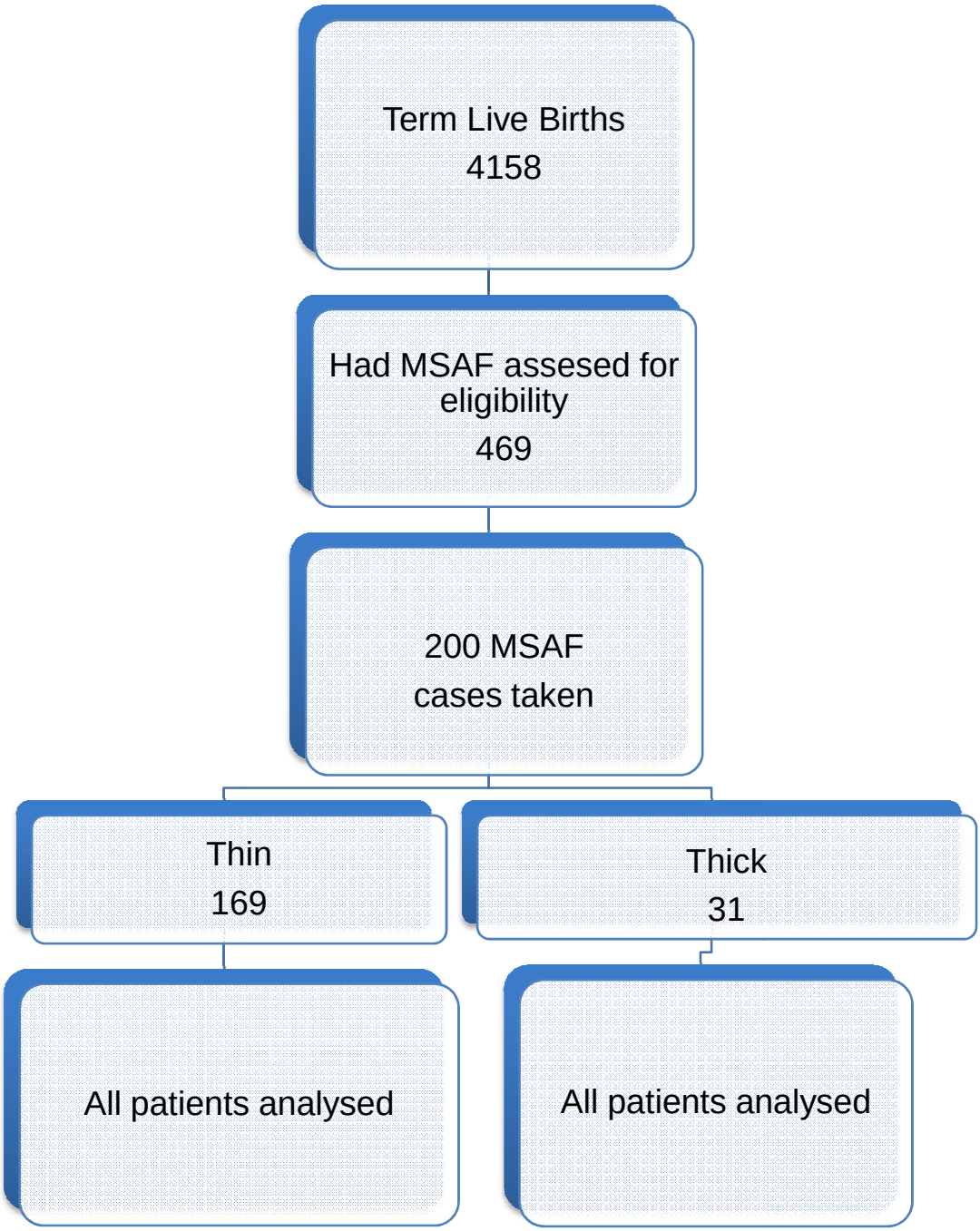
RESULTS

The study was done over a period of 5 months from May 2014 till the first week of September 2014. A total of 4158 term live births took place during this period .3681 women had clear liquor, 469 had meconium satined liquor and 8 had bloodstained liquor.
469 women with MSAF were screened for eligibility. 200 women who met the inclusion criteria were taken into the study. 200 matching controls were also recruited during the same period.

Among the patients who had MSAF 169 had thin MSAF and the remaining 31 had thick MSAF. All the 400 patients completed the study and were taken for analysis. There were significantly increased incidence of chorioamnionitis and endomyometritis in the MSAF group. The secondary outcomes, postpartum haemorrhage and retained placenta, were not found to be significantly different. Among the confounding factors analysed only the mode of delivery proved significant.

All were term singleton births. All babies had birth weight above 2.5kg and were taken into analysis. There was significantly increased incidence of respiratory distress syndrome , meconium aspiration syndrome and NICU admissions among babies born to mothers with MSAF. There were no cases of neonatal sepsis .Apgar score <6 did not show any significant difference between the groups. Consort figure is given in the next page:

CONSORT FIGURE



Clear Liquor- 3681 patients

Blood stained Liquor- 8 patients

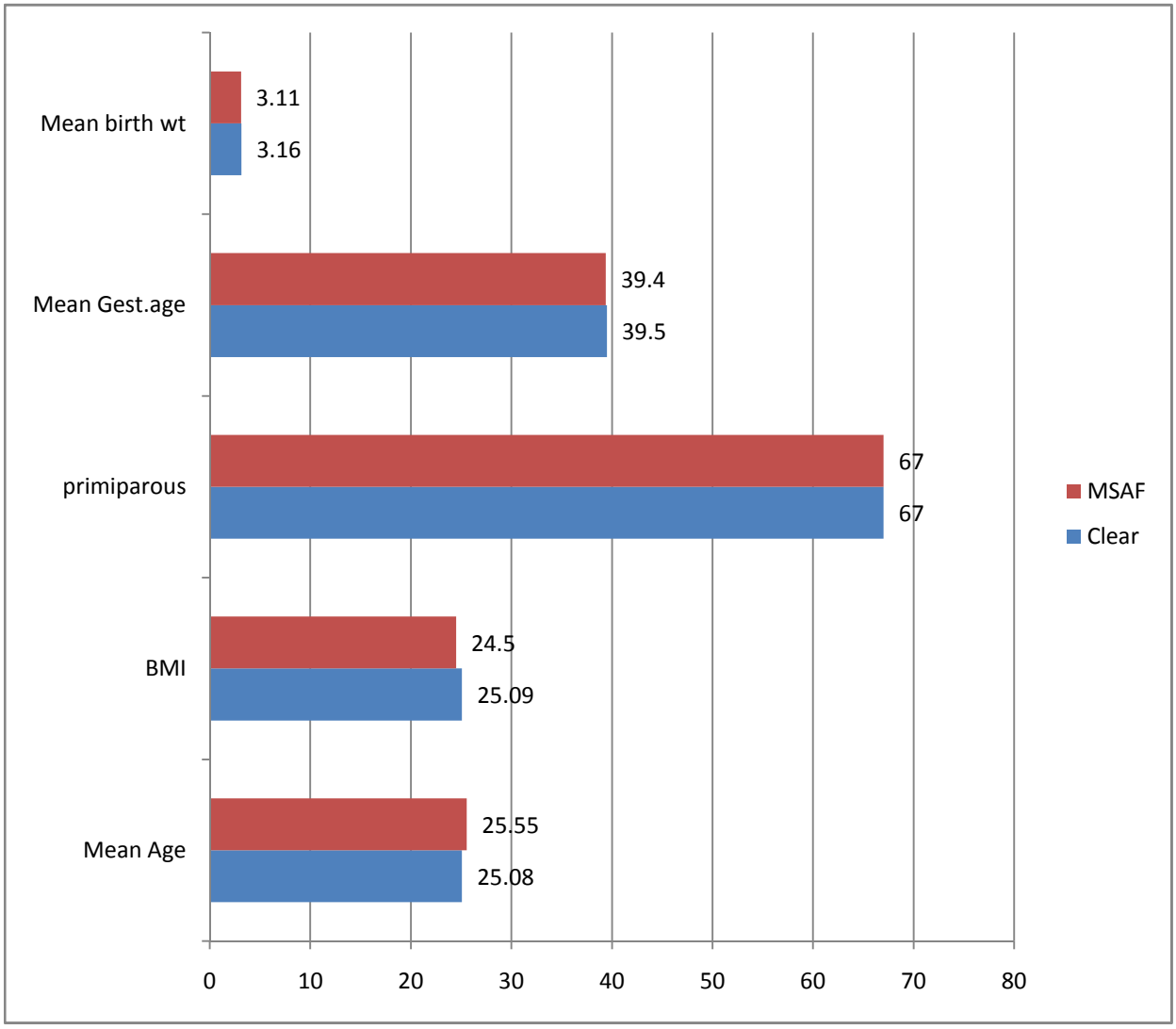
TABLE 1:BASELINE CHARACTERISTICS

Both groups were matched with respect to the baseline characteristics with regard to age, BMI, gestational age, parity and birth weight.

TABLE 1 DEMOGRAPHY – Baseline Characteristics

VARIABLES	**CLEAR (N = 200) Mean ±SD**	**MSAF (N= 200) Mean ±SD**
Mean Age in years	25.08±3.61	25.55±3.77
Mean BMI	25.09±4.6	24.5±3.9
Primiparous	134(67%)	134(67%)
Mean Gest.age (months)	39.54±0.92	39.48±0.89
Mean Birth weight(kg)	3.16±0.34	3.11±0.35

Baseline Demographic data



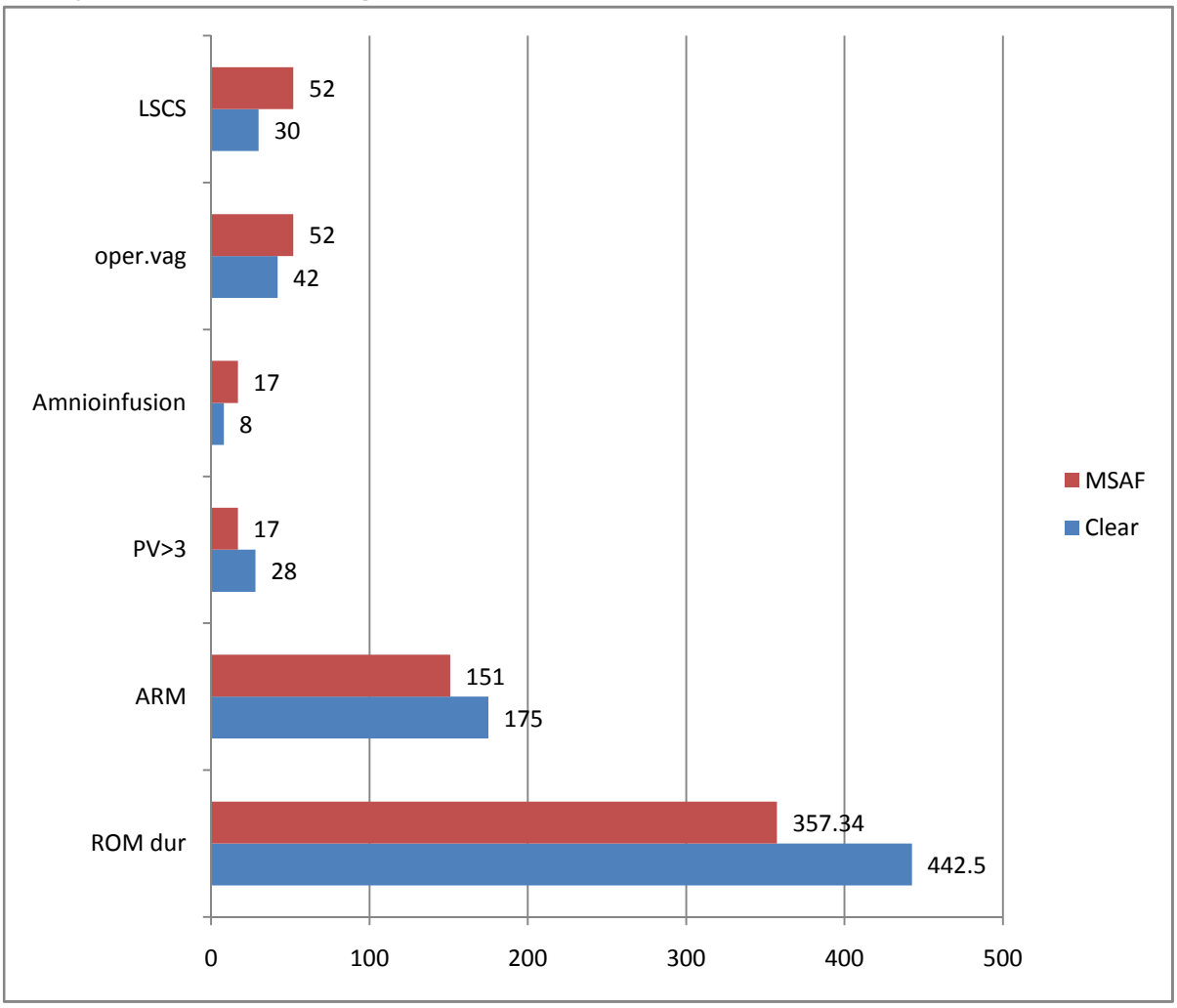
The mean age was 25.55 in the MSAF group and 25.08 in the clear group.The mean BMI was 24.5 in MSAF group and 25.09 in the clear group.67% in each group were found to be primiparous and the mean gestational age was 39 in both the groups. The average Birth weight was 3.11 in the MSAF group and 3.16 the clear group.

TABLE 2

Analysis of confounding factors for chorioamnionitis

Variable	Clear	MSAF	P value
Dur of ROM (minutes)	442.5	357.34	0.004
ARM	175(87.5%)	151(75.5%	0.002
No: of PV >3	28(14%)	17(8.5%)	0.082
Got Amnioinfusion	8(4.0%)	17(8.5%)	0.063
Mode of delivery			
Operative vag delivery	42(21%)	52(26%)	
LSCS	30(15%)	52(26%)	0.003
NVD	128(64%)	96(48%)	

Analysis of confounding factors for chorioamnionitis



The mean duration of rupture of membranes was 357.34 minutes in the MSAF group and and 442.5minutes in the clear group. ARM was done for 151 patients (75.5%) in the MSAF group and 175 patients (87.5%) in the clear group.17 women (8.5%) in the MSAF group and 28 (14%) in the clear group had multiple per vaginal examinations. Though the difference between these variables were found significant it is evident that all of these were more in the clear group than the MSAF group, for the same reason they are not relevant as confounding factors for infective morbidity in the MSAF group.17 patients (8.5%) in the MSAF group and 8 (4%) in the clear group got amnioinfusion. More patients in the MSAF group got amnioinfusion, but this was not statistically significant.

Operative vaginal delivery was conducted in 52 patients (26%) in the MSAF group and in 42 patients (21%) in the clear group. LSCS was performed in 52 women (26%) in the MSAF group and 30women in the clear group (15%).Significant difference was found in the mode of delivery between the groups. More women in the MSAF group had operative deliveries because of NRFS. So operative deliveries should be considered as an association of MSAF rather than a confounding factor.

		crosstab	colour		
			MSAF	CLEAR	Total
modofdeliv	LSCS	Count	52	30	82
		% within modofdeliv	63.4%	36.6%	100.0%
		% within colour	26.0%	15.0%	20.5%
	INSTRUMENTAL	Count	52	42	94
		% within modofdeliv	55.3%	44.7%	100.0%
		% within colour	26.0%	21.0%	23.5%
	NORMAL	Count	96	128	224
		% within modofdeliv	42.9%	57.1%	100.0%
		% within colour	48.0%	64.0%	56.0%
Total		Count	200	200	400
		% within modofdeliv	50.0%	50.0%	100.0%
		% within colour	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.538[a]	2	.003	.003		
Likelihood Ratio	11.628	2	.003	.003		
Fisher's Exact Test	11.535			.003		
Linear-by-Linear Association	11.380[b]	1	.001	.001	.000	.000
N of Valid Cases	400					

.

TABLE 3 Comparison of Probable Risk Factors for MSAF

	MSAF N(%)	**CLEAR N(%)**	**P**
Mat age >35	1 (0.5%)	2 (1%)	1.00
Birth Weight > 4kg	NIL	2(1%)	0.248
BMI>30	20(10.1%)	33(16.5%)	0.076
Gest age > 41	NIL	3(1.5%)	0.248

One patient (0.5%) in the MSAF group and 2 patients (1%) in the clear group had age >35 years. 20 women (10.1%) in the MSAF group and 33(16.5%) in the clear group were found to be obese with BMI>30. 3 patients (1.5%) in the clear group had postdated pregnancy with gestational age >41 weeks but no patients in the MSAF group came under this category. Big babies with birth weight more than 4 kg was seen in 2 women (1%) in the clear group but no patients in the MSAFgroup had the same. The variables in table 3 were separately analysed between the two groups to see if these could have any aetiological significance with respect to MSAF, but the statistical analysis showed no difference between these variables.

Comparision of Probable Risk Factors for MSAF

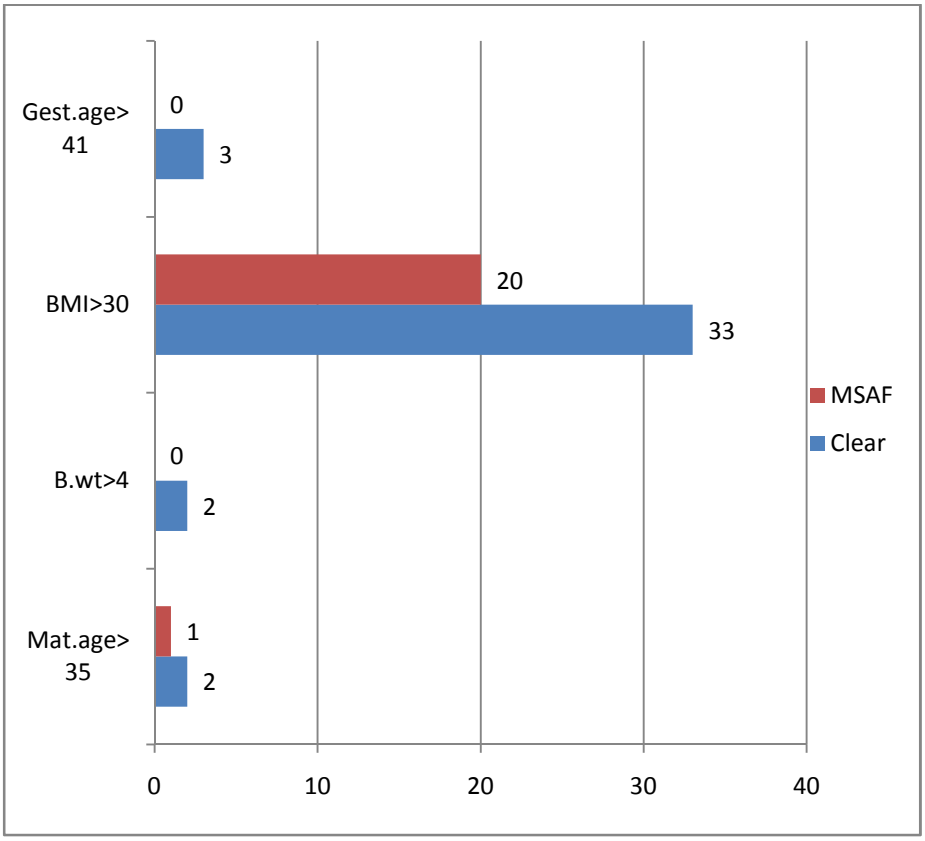


TABLE 4 Analysis of Primary end points

	Clear	MSAF	P
Chorioamnionitis	4 (2%)	16(8%)	**0.006**
Endomyometritis	6(3%)	19(9.5%)	**0.007**

Crosstab

			colour		
			MSAF	CLEAR	Total
clinicalch	Yes	Count	16	4	20
		% within clinicalch	80.0%	20.0%	100.0%
		% within colour	8.0%	2.0%	5.0%
	No	Count	184	196	380
		% within clinicalch	48.4%	51.6%	100.0%
		% within colour	92.0%	98.0%	95.0%
Total		Count	200	200	400
		% within clinicalch	50.0%	50.0%	100.0%
		% within colour	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.579[a]	1	.006	.010	.005	
Continuity Correction[b]	6.368	1	.012			
Likelihood Ratio	8.089	1	.004	.010	.005	
Fisher's Exact Test				.010	.005	
Linear-by-Linear Association	7.560[c]	1	.006	.010	.005	.004
N of Valid Cases	400					

Crosstab

			colour		
			MSAF	CLEAR	Total
endmet	Yes	Count	19	6	25
		% within endmet	76.0%	24.0%	100.0%
		% within colour	9.5%	3.0%	6.2%
	No	Count	181	194	375
		% within endmet	48.3%	51.7%	100.0%
		% within colour	90.5%	97.0%	93.8%
Total		Count	200	200	400
		% within endmet	50.0%	50.0%	100.0%
		% within colour	100.0%	100.0%	100.0%

Chi –square tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.211[a]	1	.007	.012	.006	
Continuity Correction[b]	6.144	1	.013			
Likelihood Ratio	7.554	1	.006	.012	.006	
Fisher's Exact Test				.012	.006	
Linear-by-Linear Association	7.193[c]	1	.007	.012	.006	.004
N of Valid Cases	400					

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16(8%) patients in the MSAF group had chorioamnionitis compared to 4(2%) in the clear group. Endomyometritis was identified in 19(9.5%) patients with MSAF compared to 6 patients(3%) in the clear group. The incidence of both parameters were found to be significantly high in the MSAF group compared to the clear group. The incidence of chorioamnionitis in the control group is 2% which very much in agreement with the statistics from previous studies.

Analysis of primary end points

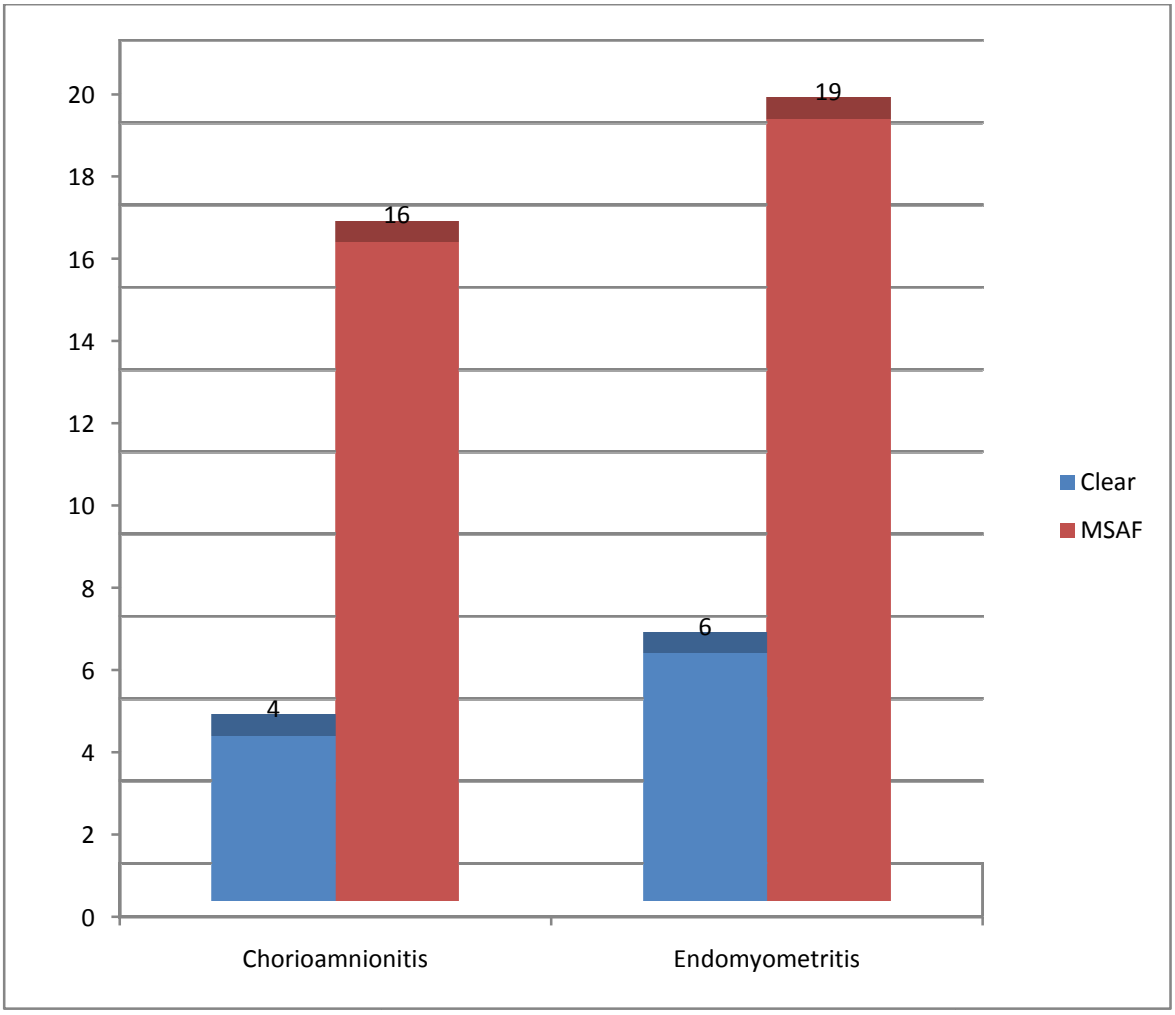
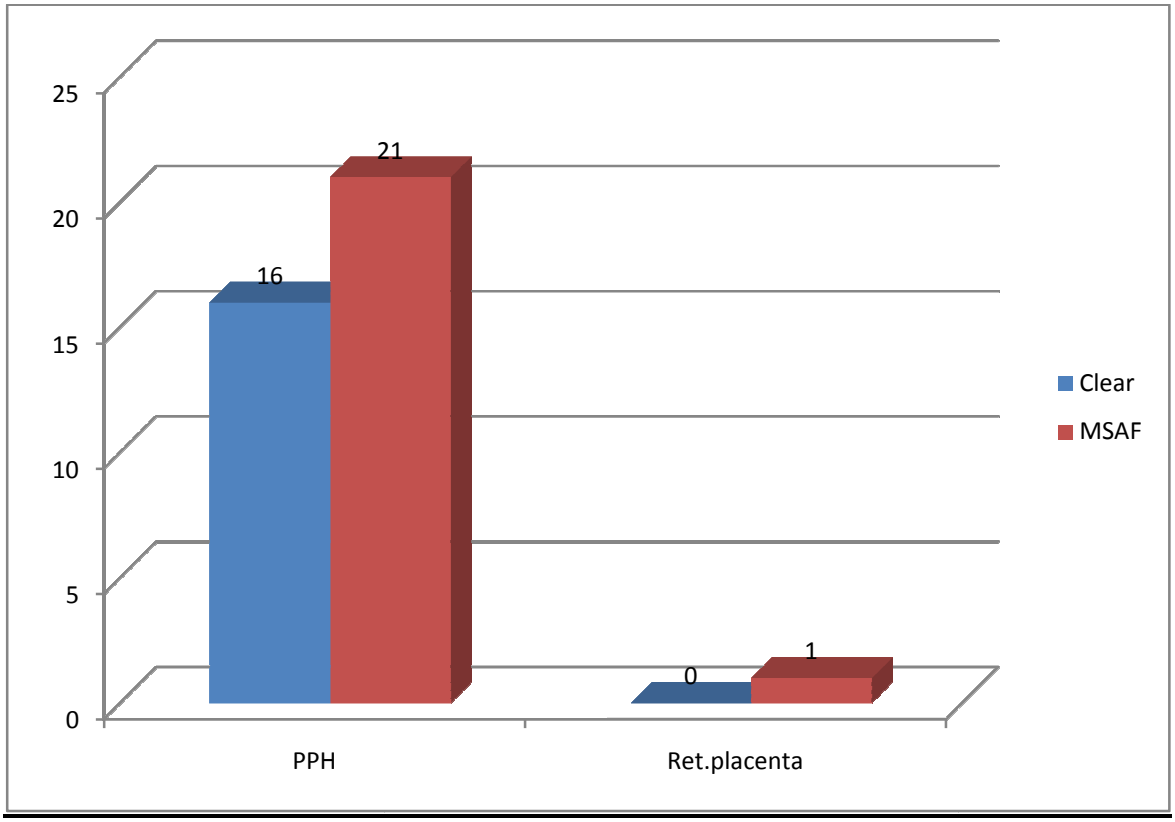


TABLE 5 Analysis of Secondary end points

	CLEAR	MSAF	P
PPH	16(8%)	21 (10.5%)	0.388
Retained Placenta	NIL	1 (0.5%)	1.000

Analysis of Secondary End Points



16 patients (8%) in the clear group and 21patients (10.5%) in the MSAF group had postpartum haemorrhage. One patient in the MSAF group (0.5%) had retained placenta whereas nobody in the clear group had this problem. Both these secondary end points had no statistically significant association with MSAF.

TABLE 6 Results of Univariate Linear regression analysis in the MSAF group

	Odds Ratio(OR)	**95 % CI**
Chorioamnionitis	4.2	1.39 – 12.98
endomyometritis	3.39	1.32 – 8.68
PPH	1.3	0.68 – 2.669
Retained placenta	1.62	NA

Linear regression analysis was used to calculate the odds ratio and 95%confidence interval for all the primary and secondary endpoints. Accordingly the patients with MSAF were found to have 4.2 times more risk for chorioamnionitis and 3.39 times more risk for developing endomyometritis. They also have 1.3 times more chance of having PPH and 1.62 times more chance for retained placenta. 95% confidence interval could not be calculated for the risk of having retained placenta as no such cases were observed in the clear group.

TABLE 7 Neonatal Outcomes

Varibales	Clear	MSAF	P Value
Sepsis	NIL	NIL	NA
MAS	NIL	8(4%)	0.007
RDS	3(1.5%)	17(8.5%)	0.001
NICUadm	NIL	14(7%)	< 0.001
Apgar <6 at 1minute	3(1.5%)	4(2%)	0.72

[MAS-Meconium aspiration syndrome; RDS- Respiratory distress syndrome; NICU-Neonatal intensive care unit admission]

Crosstab

			colour		
			MSAF	CLEAR	Total
respdistsy	Yes	Count	17	3	20
		% within respdistsy	85.0%	15.0%	100.0%
		% within colour	8.5%	1.5%	5.0%
	No	Count	183	197	380
		% within respdistsy	48.2%	51.8%	100.0%
		% within colour	91.5%	98.5%	95.0%
Total		Count	200	200	400
		% within respdistsy	50.0%	50.0%	100.0%
		% within colour	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	10.316[a]	1	.001	.002	.001	
Continuity Correction[b]	8.895	1	.003			
Likelihood Ratio	11.333	1	.001	.002	.001	
Fisher's Exact Test				.002	.001	
Linear-by-Linear Association	10.290[c]	1	.001	.002	.001	.001
N of Valid Cases	400					

Crosstab

			colour		
			MSAF	CLEAR	Total
mecoaspsyn	Yes	Count	8	0	8
		% within mecoaspsyn	100.0%	.0%	100.0%
		% within colour	4.0%	.0%	2.0%
	No	Count	192	200	392
		% within mecoaspsyn	49.0%	51.0%	100.0%
		% within colour	96.0%	100.0%	98.0%
Total		Count	200	200	400
		% within mecoaspsyn	50.0%	50.0%	100.0%
		% within colour	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	8.163[a]	1	.004	.007	.004	
Continuity Correction[b]	6.250	1	.012			
Likelihood Ratio	11.254	1	.001	.007	.004	
Fisher's Exact Test				.007	.004	
Linear-by-Linear Association	8.143[c]	1	.004	.007	.004	.004
N of Valid Cases	400					

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No neonates were diagnosed with neonatal sepsis. Though 17 babies in the MSAF group developed respiratory distress syndrome only 8 babies (4%) developed meconium aspiration . 14 babies had to be admitted and managed in NICU.4 babies(2%) in the MSAF group and 3(1.5%)in the clear group were depressed at birth with apgar scores <6 at 1minute. Statistically significant difference was found between the two groups with respect to RDS, MAS and NICU admissions.

Analysis of neonatal outcomes

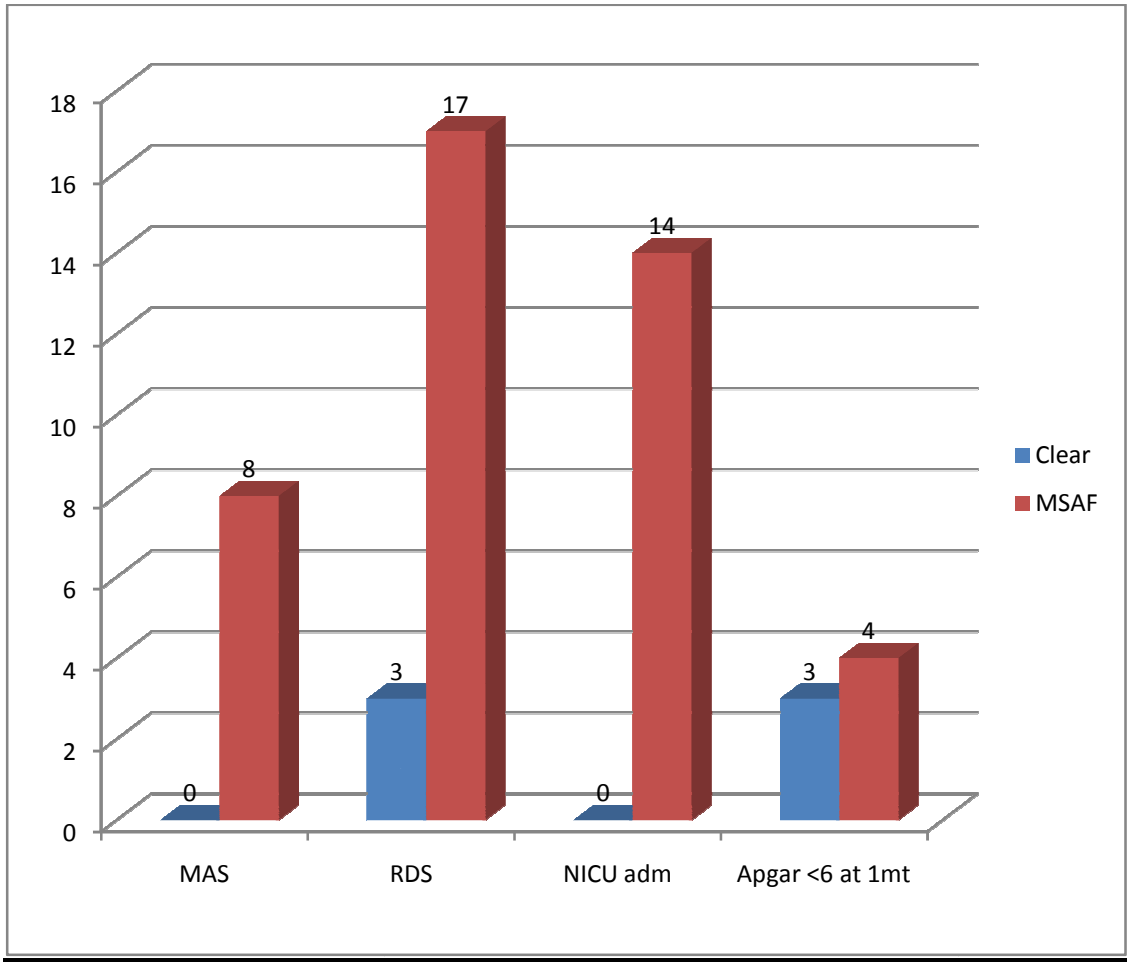

TABLE 8 Analysis of confounding factors for chorioamnionitis and endomyometritis

VARIABLES in the Clear group	CHORIOAMNIONITIS		ENDOMYOMETRITIS	
	N (1%)	P value	N (%)	P value
Amnioinfusion	0	1.000	0	1.000
>3 PVs	0	1.000	1 (3.6%)	1.000
ROM> 720mts	1 (2.5%)	1.000	2 (5.0%)	0.345
Mode of delivery (instrumental / LSCS)	3 (4.16%)	0.083	4 (5.5%)	0.008

PV-Per-vaginal examination ; ROM- Rupture of membranes

In the clear group no cases of chorioamnionitis or endomyometritis occurred in patients who received amnioinfusion .None had chorioamnionitis and 1 woman (3.6%) had endomyometritis among those who had multiple per vaginal examinations. Among patients who had prolonged labour ,that is duration of rupture of membranes more than 720 minutes (12 hours), 1 case (2.5%) of chorioamnionitis and 2 cases (5%) of endomyometritis were identified. 3 women (4.16%) developed chorioamninitis and 4 women(5.5%) developed endomyometritis among those who had interventional delivery (LSCS / instrumental) .

TABLE 9 Analysis of comfounding factors for chorioamnionitis and endomyometritis

VARIABLES in the MSAF group	CHORIOAMNIONITIS		ENDOMYOMETRITIS	
	N (1%)	P value	N (%)	P value
Amnioinfusion	0	0.37	1 (5.9%)	1.000
>3 PVs	2 (11.8%)	0.632	1 (5.9%)	1.000
ROM> 720mts	5 (17.2%)	0.062	5 (17.2%)	0.163
Mode of delivery (instrumental / LSCS)	14(13.4%)	0.002	18 (17.3%)	< 0.001

PV-Per-vaginal examination ; ROM- Rupture of membranes

In the MSAF group no cases of chorioamnionitis occurred in patients who received amnioinfusion but there was 1 (5.9%) case of endomyometritis. 2 (11.8%) had chorioamnionitis and 1 (5.9%) had endomyometritis among those who had multiple per vaginal examinations. Among patients who had prolonged labour ,that is duration of rupture

of membranes more than 720 minutes (12 hours), 5 cases (17.2%) of chorioamnionitis and 5 cases (17.2%) of endomyometritis were identified. 14 women (13.4%) developed chorioamninitis and 18 women(17.3%) developed endomyometritis among those who had interventional delivery (LSCS / instrumental) .

Among all the confounding factors analysed statistically significant association was found between both types of peripartum infective morbidity and interventional delivery in both the study group and the control group.

TABLE 10 Comparison of primary outcomes between thin MSAF patients and thick MSAF patients

Variables	**Thin MSAF** 169 (84.5%)	**Thick MSAF** 31 (15.5%)	**P value**
Chorioamnionitis	12(7.1%)	4(12.9%)	0.28
Endomyometritis	11(6.5%)	8(25.8%)	0.003

crosstab

			typofmecon		
			Thick	Thin	Total
clinicalch	Yes	Count	4	12	16
		% within clinicalch	25.0%	75.0%	100.0%
		% within typofmecon	12.9%	7.1%	8.0%
	No	Count	27	157	184
		% within clinicalch	14.7%	85.3%	100.0%
		% within typofmecon	87.1%	92.9%	92.0%
Total		Count	31	169	200
		% within clinicalch	15.5%	84.5%	100.0%
		% within typofmecon	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	1.198[a]	1	.274	.281	.221	
Continuity Correction[b]	.540	1	.463			
Likelihood Ratio	1.059	1	.303	.475	.221	
Fisher's Exact Test				.281	.221	
Linear-by-Linear Association	1.192[c]	1	.275	.281	.221	.141
N of Valid Cases	200					

CROSS TAB

			typofmecon		
			Thick	Thin	Total
endmet	Yes	Count	8	11	19
		% within endmet	42.1%	57.9%	100.0%
		% within typofmecon	25.8%	6.5%	9.5%
	No	Count	23	158	181
		% within endmet	12.7%	87.3%	100.0%
		% within typofmecon	74.2%	93.5%	90.5%
Total		Count	31	169	200
		% within endmet	15.5%	84.5%	100.0%
		% within typofmecon	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.346[a]	1	.001	.003	.003	
Continuity Correction[b]	9.213	1	.002			
Likelihood Ratio	8.807	1	.003	.003	.003	
Fisher's Exact Test				.003	.003	
Linear-by-Linear Association	11.290[c]	1	.001	.003	.003	.003
N of Valid Cases	200					

A subgroup analysis was done within the MSAF group to compare between those with thick MSAF and thin MSAF. Women with thick MSAF had increased incidence of both chorioamnionitis and endomyometritis. Chorioamnionitis occurred in 12(7.1%) women with thin MSAF and 4(12.9%) women with thick MSAF. But the difference was not statistically significant (P=0.28).

Endomyometritis occurred in 11(6.5%) patients with thin MSAF and 8 patients with thick MSAF (25.8%) and this variable was found to have statistically significant (P=0.003) increased incidence in the MSAF group.

Comparison of primary outcomes between thin MSAF and thick MSAF

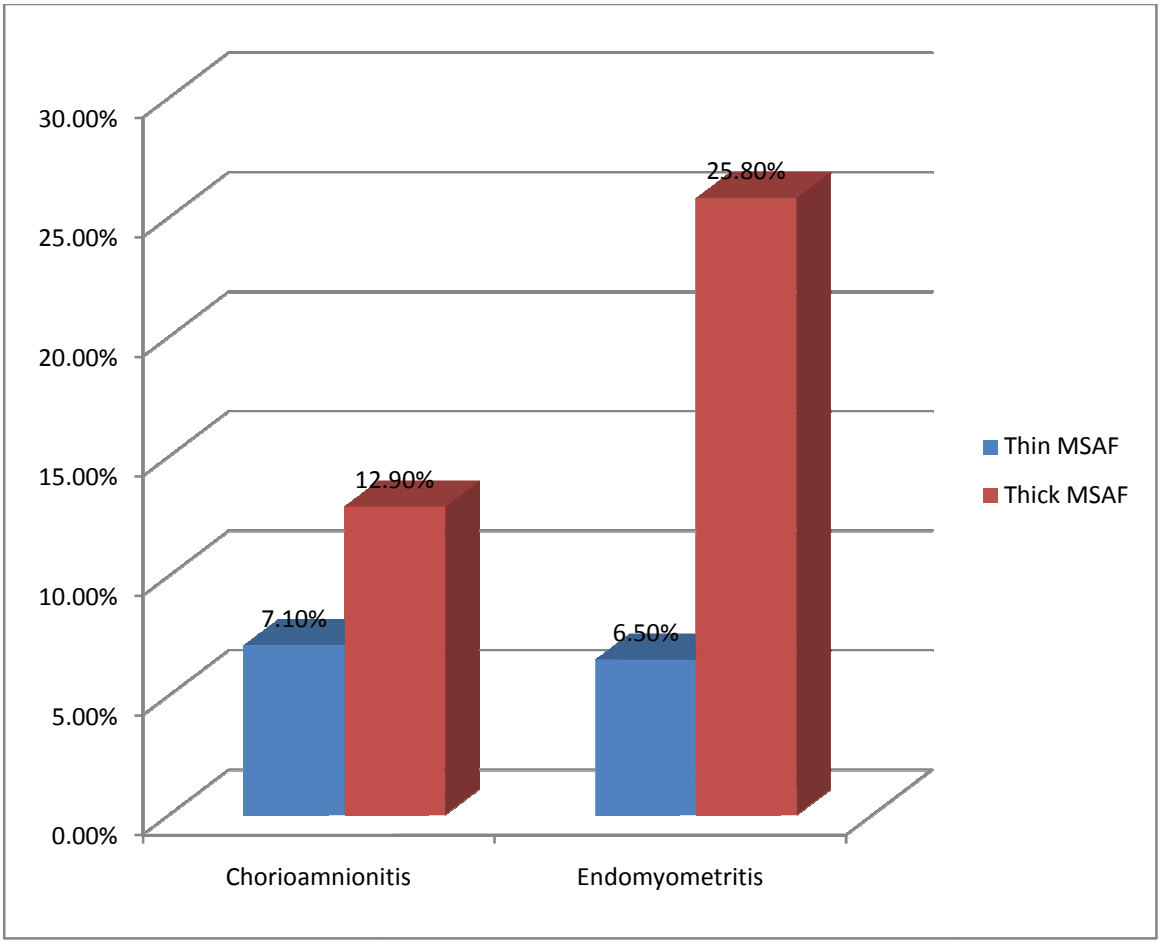

TABLE 10

Comparison of neonatal outcomes between thin MSAF patients and thick MSAF patients

Variables	Thin MSAF 169 (84.5%)	Thick MSAF 31 (15.5%)	P value
RDS	12(7.1%)	5(16.1%)	0.15
MAS	4(2.4%)	4(12.9%)	0.02

There were 16.1% of newborns with RDS the thick MSAF group compared to 7.1% in the clear group.The difference was not statistically significant (p=0.15).Meconium aspiration syndrome was significantly high in the thick MSAF group(12.9% vs 2.4%;P= 0.02)

crosstab

			typofmecon		Total
			Thick	Thin	
Mecoaspsyn	Yes	Count	4	4	8
		% within mecoaspsyn	50.0%	50.0%	100.0%
		% within typofmecon	12.9%	2.4%	4.0%
	No	Count	27	165	193
		% within mecoaspsyn	14.0%	86.0%	100.0%
		% within typofmecon	87.1%	97.6%	96.0%
Total		Count	31	169	200
		% within mecoaspsyn	15.4%	84.6%	100.0%
		% within typofmecon	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.636[a]	1	.006	.021	.021	
Continuity Correction[b]	5.125	1	.024			
Likelihood Ratio	5.516	1	.019	.021	.021	
Fisher's Exact Test				.021	.021	
Linear-by-Linear Association	7.598[c]	1	.006	.021	.021	.018
N of Valid Cases	200					

Crosstab

			typofmecon		
			Thick	Thin	Total
respdistsy	Yes	Count	5	12	17
		% within respdistsy	29.4%	70.6%	100.0%
		% within typofmecon	16.1%	7.1%	8.5%
	No	Count	26	157	184
		% within respdistsy	14.1%	85.9%	100.0%
		% within typofmecon	83.9%	92.9%	91.5%
Total		Count	31	169	200
		% within respdistsy	15.4%	84.6%	100.0%
		% within typofmecon	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	2.786[a]	1	.095	.150	.099	
Continuity Correction[b]	1.738	1	.187			
Likelihood Ratio	2.357	1	.125	.150	.099	
Fisher's Exact Test				.150	.099	
Linear-by-Linear Association	2.772[c]	1	.096	.150	.099	.069
N of Valid Cases	200					

DISCUSSION

The largest study done to date with regard to the maternal infectious morbidity associated with meconium stained amniotic fluid was in 2003 by Susan et al. Most of the other studies found in literature were done between 1990 and 2000. All of them pointed towards an increased association between chorioamnionitis , endomyometritis and MSAF. But most were retrospective studies with small sample sizes.

In 2010 a Cochrane review was published about the benefits of antibiotic prophylaxis in MSAF. But this was based on a single study done by Adair 1996 and they have identified the need for further studies with bigger sample sizes (34).

Currently, the world over ,management of MSAF is based on the understanding that meconium passage inutero is normal for a mature fetus and needs intervention only if nonreassuring fetal heart pattern is identified from external fetal monitoring. Associated maternal morbidity, in spite of many evidences in the past, is being neglected.

Once confronted with the fact, the first doubt that we had was whether the modern obstetric management protocols have brought down the infectious morbidity associated with MSAF. Another issue that had to be addressed was how was the Indian scenario, with the number of deliveries far exceeding the western statistics along with limited facilities, are our women at higher risk requiring active management.

With the above mentioned thoughts we have done a prospective case control study. The sample size as calculated with 200 patients and 200 controls was achieved during the study period. Both the groups were adequately matched with regard to age of the patient, BMI, parity, gestatinal age and birth weight .

In addition, confounding factors for peripartum infective morbidity like duration of rupture of membranes, number of mothers who had multiple per vaginal examinations, amnioinfusion and operative deliveries were comparable between the two groups.Of these the first two were found to be more in the clear group ,hence are not relevant as confounding factors. More women with MSAF received amnioinfusion but the difference was not found to be statistically significant. There was significant difference between the two groups with respect to mode of delivery(P=0.003), with more women in the MSAF group being delivered by operative interventions due to nonreassuring fetal status, an association rather than a confounding effect.

We have also made an effort to identify some factors which may have aetiological relevance with respect to MSAF. These factors were maternal age >35 years, BMI>30, gestational age >41 weeks and birth weight >4kg.But none of these were found to be significantly different between the two groups.

There was statistically significant difference in the incidence of chorioamnionitis

(P = 0.006 , OR = 4.2 , 95% CI = 1.39 -12.98) and endomyometrits (P = 0.007, OR= 3.39 , 95% CI = 1.32 – 8.68) between the two groups. The incidence of chorioamnionitis among the controls was 2% which is consistent with data from general population (15).

The incidence of chorioamnionitis among the MSAF group was 8%. Previous studies quote values between 4%-10% (2,3,5, 15,19).Endomyometritis occurred in 9.5% in the MSAF group compared to 3% in the clear group. Available literature gives an incidence of endomyometritis varying from (2%- 16%) in MSAF patients (15, 34).

Comparison between available data and our study

Incidence	Available Studies	Our Study
Chorioamnionitis	4-10%	8%
Endomyometritis	2-16%	9.5%

There were no significant difference between the two groups with respect to the secondary endpoints: postpartum haemorrhage(10.5% vs 8%) and retained placenta (0 .5% vs 0%) .Both complications are expected to increase with chorioamnionitis due to uterine dystonia. In our labour room as soon as clinical chorioamnionitis was diagnosed patients were started

on intravenous ampicillin and gentamicin till delivery and was continued along with metronidazole till 48 hours fever free if the patient underwent LSCS. This would have in turn prevented the consequences of chorioamnionitis.

Neonatal outcomes were analysed as secondary end points. No baby was diagnosed with neonatal sepsis in both the study group and the control group.This is probably due to the policy of our institution to start the babies on intravenous broad spectrum antibiotics once the mother had chorioamnionitis or rupture of membranes more than 18 hours. Prophylactic antibiotics were also started whenever the neonate was diagnosed with tachypnoea or hypoglycaemia .

Noticeably the incidence of babies with respiratory distress (8.5% vs 1.5%; P=0.001) and meconium aspiration(4% vs 0% ; P = 0.007) was found to show statistically significant difference between the two groups. NICU admissions were significantly more (7% vs 0%) in the MSAF group. But one baby had esophageal atresia and another had duodenal atresia and underwent corrective surgeries. The figures reveal that few babies with RDS have recovered while under observation in labour room and were transferred to mother's side.

The apgar scores <6 at 1 minute (2% vs 1.5%; P = 0.72) was not found to be statistically significant. Hence the study group is not showing any increased incidence of birth asphyxias. In most of the babies respiratory distress was only transient . So considering the neonatal outcome our intrapartum of management of MSAF seems adequate.

A subgroup analysis was done between patients who had thin and thick MSAF. The later had increased incidence of chorioamnionitis (12.9% vs 7.1%; P= 0.28) and endomyometritis(25.8% vs 6.5% ; P = 0.003) compared to the former but only endomyometritis showed statistically significant difference. These values imply that women with thick MSAF have a definitely higher risk for perinatal infectious morbidity, a bigger sample size could probably attain statistical significance in the first variable.

The incidence of respiratory distress and meconium aspiration were also separately analysed between the two subgroups . The data shows that both respiratory distress syndrome (16.1% vs 7.1% ; P= 0.15)) and meconium aspiration syndrome (12.9% vs 2.4% ; P= 0.02) are more in the thick MSAF group but statistical significant increase in MAS was seen in the thick group, which is more so because of the turbid nature of the meconium in this group which is difficult to be cleared from the airway once aspirated.

The other predisposing factors for peripartum infectious morbidity were separately analysed in the two groups. No significant causal association was found between amnioinfusion, multiple per vaginal examinations and prolonged rupture of membranes in the study group

and control group . But there was statistically significant association between operative delivery and endomyometritis (P= 0.008) in the control group.The study group showed significantly increased incidence of chorioamnionitis(P= 0.002)and endomyometritis(P=0.001) in women who had undergone operative delivery.

All the patients who had prolonged labour with rupture of membranes more than 18 hours were started on intravenous broad spectrum antibiotic (Ampicillin 2g IV q6h) till delivery.This explains why the peripartum infective morbidity was not altered by rupture of membranes more than 720 minutes and multiple per vaginal examinations.

No patients who received amnioinfusion developed chorioamnionitis and only 1 woman in the study group developed endomyometritis. This might suggest that amnioinfusion as a treatment modality is protective against infective morbidity associated with MSAF,most probably because amnioinfusion dilutes meconium .

The only confounding factor that was found to have significant association with chorioamnionitis and endomyometritis was operative delivery (instrumental /LSCS) with P values of 0.002 and 0.001 in the study group and 0.0833 and 0.008 respectively in the control group.

Since chorioamnionitis is diagnosed prior to delivery the association is not causal, rather it shows that these patients were delivered soon either by LSCS or operative vaginal delivery. But with respect to endomyometritis mode of delivery may causal association since operative vaginal deliveries and LSCS are associated with more manipulation and blood loss. So the actual incidence of endomyometritis which results from MSAF can be lower than what is evident from the study .

Considering intention to treat 12 women and 10 women with MSAF will have to be given prophylactic antibiotics to prevent one case of chorioamnionitis and endomyometritis respectively. If the thin MSAF group is assessed the numbers to be treated are 14 and 15 respectively whereas the same in thick MSAFgroup is 7and 3.

Maternal morbidity associated with chorioamnionitis include uterine inertia, dysfunctional labour, more operative interventions, primary and secondary post partum haemorrhage , poor uterine wound healing and wound infections. Endomyometritis can lead to puerperal sepsis in turn may result in grave consequences like pelvic peritonitis, pelvic abscess, parametrial phlegmon and septic thrombophlebitis.

Histopathological studies (16) reveal 62% incidence of chorioamnionitis among those with MSAF compared to 27% in the clear group. Knowing clinical chorioamnionitis shows only the tip of the iceberg and given the grave consequences it seems prudent to offer antibiotic prophylaxis in at least those patients with thick MSAF.

However this evidence needs further validation and justification from larger studies. At this point we can probably say our figures are showing stastically significant increase in peripartum infective morbidity in Indian women with MSAF comparable to the western studies. Considering the associated maternal and neonatal morbidity meconium stained liquor is an entity that warrants careful intrapartum and postpartum monitoring rather than just being a sign of fetal gastrointestinal maturity .

LIMITATIONS

1. There is no blinding

2. Diagnosis of primary end points was clinical, no histopathological or biochemical parameters were assessed.

3. No long term follow up

CONCLUSIONS

This is a prospective case control study with 200 patients in the study group and 200 patients in the control group. The groups were adequately matched with regard to maternal age, BMI, parity, gestational age and birth weight.

1. The incidence of peripartum infectious morbidity associated with MSAF seems constant over the last two decades.
2. The statistics from Western population is comparable with our Asian population.

3. The women with MSAF had higher incidence of

chorioamninitis (P= 0.006) and endomyometritis (P = 0.007) .

This was found to be statistically significant compared to the control group.

4.There was no significant difference between the two groups with respect

to secondary end points :

a. postpartum haemorrhage (P= 0.388)
b. retained placenta (P=1.000)

5.Respiratory disress syndrome (P=0.001) and meconium aspiration syndrome

(P= 0.007) were significantly high in the MSAF group.

6. Both types of peripartum infective morbidities were high in the group who had thick MSAF, but the difference showed statististical significance only for endomyometritis (P=0.003).

7.Amnioinfusion was found to have beneficial effect on women with MSAF.

This study compared the maternal infectious morbidity and neonatal outcomes in Indian women with MSAF at term gestation. Both chorioamnionitis and endomyometritis were found to be significantly eleviated in the MSAF group.The association was more profound in women with thick MSAF.The number needed to be treated was 12 with respect to chorioamnionitis and 10 with regard to endomyometritis , the same values were only 7 and 3 respectively in women with thick MSAF.

Our conclusion is that it is prudent to offer antibiotic prophylaxis for women with MSAF for the following reasons:

- To bring down maternal peripartum infective morbidity
- Small numbers needed to treat

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ANNEXURE 1 - PATIENT INFORMATION SHEET

AIMS

To study the maternal and perinatal complications associated with meconium stained amniotic fluid in low risk women in Christian Medical College and Hospital,Vellore.

Introduction

This study is being conducted by Department of Obstetrics and Gynaecology, CMC Hospital Vellore. Meconium stained amniotic fluid is a common finding in patients admitted in labour. Some women with this complication can develop uterine infection.This can happen intrapartum or postpartum.Some neonates can also develop features of infection or poor oxygenation.

The objective of this study is to analyse the incidence of these complications in our patients admitted in labour with meconium stained amniotic fluid but otherwise at low risk.

Patients will be assesed after rupture of membranes and selected accordingly on meeting the eligibility criteria.

Methodology

The study uses procedures and investigations routinely being performed on these patients and newborns as per CMC labour room protocol..

Benefits

By knowing the complications associated with meconium stained amnioitc fluid necessary corrective measures can be adopted to reduce the incidence of the same.

Risk

The management of meconium stained amniotic fluid will be the same as what is practised in the institution at present.So there will not be any additional risks for those involved with the study. However you will be exposed to all the risks associated with meconium stained amniotic fluid in labour.

Confidentiality

All information regarding the individuals participating in this study will be treated as strictly confidential. No information regarding your result will be disclosed to any person not associated with either your care or this study.

Volunteering for the study

Participation in this study is entirely voluntary. Your participation or non-participation will not affect any further treatment provided to you in this hospital.

Questions

If you have any doubts regarding the study you may clarify them now or contact either of the following:

Dr.Kavitha Abraham, Department of Obstetrics and Gynaecology ,

Phone - 9787250534

Dr. Elsy Thomas,Departemnt of Obstetrics and Gynaecology

Phone: 0416-2282323

ANNEXURE 2- INFORMED CONSENT FORM

Study Title: To study the maternal and perinatal complications associated with meconium stained amniotic fluid in low risk women in labour admitted in Christian Medical College and Hospital, Vellore.

Study Number:

Patient's Name: _____

Date of Birth / Age: _____

(i) I confirm that I have read and understood the information sheet/ has been read to me dated _____ for the above study and have had the opportunity to ask questions. [ ]

(ii) I understand that my participation in the study is voluntary and that I am

free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. [ ]

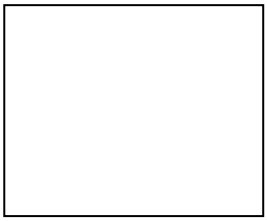
(ii) I understand that the Sponsor of the clinical trial, others working on the Sponsor's behalf, the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published. [ ]

(iv) I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s) [ ]

(v) I agree to take part in the above study. [ ]

Signature (or Thumb impression) of the Subject/Legally Acceptable Representative:_____

Or



Date: _____/_____/_____

Signatory's Name: _____

Address:

Signature of the Investigator: _____

Date: _____/_____/_____

Study Investigator's Name: _____

Signature of the Witness: _____

Date:_____/_____/_____

Name of the Witness: _____

Address:

ANNEXURE 3 - PROFORMA FOR MSAF STUDY

NAME

AGE

HOSPITAL NO.

UNIT

ADDRESS

PHONE NO.

BMI

GESTATIONAL AGE

OBSTETRIC SCORE

TIME OF ADMISSION TO LABOUR ROOM

TIME OF RUPTURE OF MEMBRANES

DURATION OF RUPTURE OF MEMBRANES

MODE OF RUPTURE OF MEMBRANES

SPONTANEOUS YES NO

ARTIFICIAL YES NO

COLOUR OF LIQUOR MSAF CLEAR

NUMBER OF PELVIC EXAMINATIONS ≤3 >3

AMNIOINFUSION YES NO

TYPE OF MECONIUM STAINED LIQUOR THICK THIN

TIME OF DELIVERY

MODE OF DELIVERY LSCS INSTRUMENTAL

NORMAL

PRIMARY ENDPOINTS

CLINICAL CHORIOAMNIONITIS YES NO

ENDOMYOMETRITIS YES NO

SECONDARY END POINTS

POSTPARTUM HAEMORRHAGE YES NO

RETAINED PLACENTA YES NO

NEONATAL OUTCOMES

BABY'S HOSPITAL NO.

BIRTH WEIGHT

APGAR SCORE

NEONATAL SEPSIS YES NO

MECONIUM ASPIRATION SYNDROME YES NO

RESPIRATORY DISTRESS SYNDROME YES NO

NICU ADMISSION YES NO

EXPANSION OF ABBREVIATIONS

MSAF - Meconium stained amniotic fluid

RDS - respiratory distress syndrome

MAS - meconium aspiration syndrome

ROM -rupture of membranes

ARM -artificial rupture of membranes

NVD -normal vaginal delivery

NICU - neonatal intensive care unit

PPH -postpartum haemorrhage

FHR -fetal heart rate

S.NO	NAME	AGE	HOSPITAL	UNIT	WT	HT	BMI	GA	OBS	ADDATE	TIMEAD	DATERUP
1	arul jothi	33	105582c	og4	48.5	152	20.99	39+2	multi	14-May	9.1	14-May
2	janani	27	143475f	0g3	56	166	20.32	40+4	multi	15-May	1.2	15-May
3	Dhanalakshmi	37	687395d	og3	73	155	30.39	38+6	primi	16-May	5.4	16-May
4	Sasirekha	28	778277D	og5	71.6	158	28.68	40+4	multi	17-May	13	17-May
5	Pavithra	22	796890F	og4	52.46	157	21.28	38	primi	18-May	12.3	18-May
6	Lakshmi	25	903757F	og3	70	168	24.8	40+4	primi	19-May	19.3	19-May
7	thenmozhi	20	841462F	og5	48.6	144	23.44	37	primi	20-May	1.3	20-May
8	Sharmila	31	278837F	og5	60	149	27.03	38+4	multi	21-May	9.05	21-May
9	Sriselvi	29	195319D	og5	67.8	159	26.82	38+5	multi	22-May	21.5	22-May
10	Janaki	26	705129f	og3	57.3	156	23.55	39+1	multi	23-May	4.2	23-May
11	Dhanalakshmi	25	791378F	og3	59.6	157	24.18	39+5	primi	24-May	14.4	24-May
12	Nasreen Banu	22			58	154	24.46	40+4	primi	25-May	1	25-May
13	Devi	28	711512D	og5	66.6	149	30	40+3	multi	26-May	6	26-May
14	Preethi.R	23	924361A	og3	79.8	157	32.37	39+4	multi	27-May	17.2	27-May
15	Valli.A	33	682554F	og4	48.9	147	22.63	39+6	primi	28-May	14.45	28-May
16	Ediga Jyothi	27	145163F	og5	59	155	24.56	39+6	primi	29-May	11	29-May
17	Meenakshi.P	29	788771F	og4	60	164	22.31	40+1	primi	30-May	5.3	30-May
18	Sumathi	30	768712F	og3	58	158	23.23	38+3	primi	31-May	12.15	31-May
19	Kokila	21	806526F	og3	79	160	30.86	37+5	primi	1-Jun	4.55	1-Jun
20	Saraswathi	28	671768D	og5	69	150	30.67	39+5	multi	2-Jun	20.2	2-Jun
21	Revathi	21	855591F	og4	60	150	26.67	39+6	primi	3-Jun	7.3	3-Jun
22	Kalpana	21	857014F	og5	47	150	20.89	39	primi	4-Jun	8.25	4-Jun
23	Sathya	26	724159F	og3	39.9	160	15.59	39	primi	5-Jun	20.5	5-Jun
24	Selin.J	34	138438D	og3	54.6	150	24.27	39+3	multi	6-Jun	12.2	6-Jun
25	Rizwana Begum	26	816874F	og5	63	153	26.91	40+3	multi	7-Jun	11.3	7-Jun
26	Gowthami	24	906325F	og5	48	157	19.47	40	primi	8-Jun	15.3	8-Jun
27	Bhargavi	24	906319F	og3	70	160	27.34	40+5	primi	9-Jun	23.1	9-Jun
28	Lavanya	23	184316F	og3	59.2	144	28.55	40+4	multi	10-Jun	14.55	10-Jun
29	Sathya	30	086470F	og3	52	160	20.31	39+4	multi	11-Jun	8.4	11-Jun
30	Tamizhselvi	24	863386F	og3	88.12	155	36.68	39+3	primi	12-Jun	16.4	12-Jun
31	Lavanya.R	26	678059A	og4	57.6	155	23.98	40+3	primi	13-Jun	13	13-Jun
32	Saranya	22	710308F	og5	62.5	157	25.36	40+4	primi	14-Jun	10.1	14-Jun
33	Deepa	27	906378F	og3	61.2	153	26.14	38+5	multi	15-Jun	13	15-Jun
34	Tharanibai	32	022675F	og3	64.2	158	25.72	40+4	multi	16-Jun	2.45	16-Jun
35	Suganya.D	23	320513F	og5	54.1	150	24.04	37+5	primi	17-Jun	11.45	17-Jun
36	Noorsalma Begum	24	823927F	og3	71	155	29.55	40+5	primi	18-Jun	10.3	18-Jun
37	Haleema Mubarak	21	845402f	og3	78.7	152	34.06	40	primi	19-Jun	3.3	19-Jun
38	vinitha	22	800297F	OG4	84.6	171	28.93	40+4	primi	20-Jun	18	20-Jun
39	Zainap Begum	34	138826C	og4	59.6	162	22.71	39+4	primi	21-Jun	6.45	21-Jun
40	Dasslumina	33	305924F	og4	71.64	159	28.34	39+6	multi	22-Jun	17.3	22-Jun
41	Mageswari	22	989925D	og5	46	162	17.53	37+5	primi	23-Jun	1	23-Jun
42	Epsiba Mary	24	793077B	og4	54	155	22.48	38+3	primi	24-Jun	20.5	24-Jun
43	Amudha	19	723052F	og3	48.6	152	21.04	40+2	primi	25-Jun	7.15	25-Jun
44	Tamizharasi	33	728057F	og5	52	150	23.11	39+3	primi	26-Jun	12.25	26-Jun
45	Ramya	20	908701F	og4	44	150	19.56	40+2	primi	27-Jun	15.55	27-Jun
46	Shyamala	21	715479F	og5	62.4	157	25.32	39+5	primi	28-Jun	10.35	28-Jun
47	renugadevi	29	718139D	og4	61.2	155	25.47	38+2	multi	29-Jun	16.35	29-Jun
48	Ryeana Banu	25	769453F	og5	58.2	147	26.93	38+5	multi	30-Jun	6	30-Jun
49	Niranjana Devi	22	822299F	og3	67.9	161	26.19	38+5	primi	1-Jul	8.05	1-Jul
50	Krishnaveni	24	908735F	og5	56.5	151	24.78	40	primi	2-Jul	9.2	2-Jul
51	Nafeesa	31	928524D	og5	47.3	152	20.47	39+3	multi	3-Jul	3.4	3-Jul
52	Noorjahan.H	26	864111F	og5	64	162	24.39	40+1	primi	4-Jul	10.45	4-Jul
53	Arhana.E	21	748375F	og3	52.2	165	19.17	40+4	primi	5-Jul	21.1	5-Jul
54	Malathi	29	719135F	og3	64.9	159	25.67	39+6	primi	6-Jul	17.05	6-Jul
55	Indu.S	21	779095F	og5	57.8	150	25.69	38+5	primi	7-Jul	20	7-Jul

56	priya	22	908750F	og3	65	164	24.17	39+3	primi	8-Jul	9.3	8-Jul
57	Anjali.S	23	762819F	og5	66	157	26.78	39+5	primi	9-Jul	17.3	9-Jul
58	Shakeera Banu	22	723259F	og5	56.1	154	23.65	39+6	primi	10-Jul	9.1	10-Jul
59	Umavathy	26	723105F	og3	65.5	147	30.31	40+3	primi	11-Jul	18.4	11-Jul
60	Saranya	22	760207F	og3	63.4	150	28.18	40	primi	12-Jul	14	12-Jul
61	Rajeshwari	27	888641F	og4	70	150	31.11	40+3	primi	13-Jul	6.25	13-Jul
62	Tabassum	26	725108F	og4	61.5	160	24.02	38+1	primi	14-Jul	16	14-Jul
63	Nayemunnisa	24	729686F	og5	87	165	31.96	39+3	primi	15-Jul	7	15-Jul
64	Nirmala.S	24	357269F	og5	55.9	154	23.57	40+5	primi	16-Jul	12.15	16-Jul
65	Shakila	29	709660F	og5	54.4	165	19.98	40+5	primi	17-Jul	11.25	17-Jul
66	Malarkodi	27	773362D	og4	60.3	162	22.98	39+6	multi	18-Jul	9.2	18-Jul
67	Kanchana	31	823247F	og5	65	162	24.77	40+4	primi	19-Jul	11.5	19-Jul
68	Thulasi.J.S	25	640460D	og5	49.2	160	19.22	38+2	primi	20-Jul	16.1	20-Jul
69	Sruthi	26	744354F	og5	61.8	164	22.98	37+4	primi	21-Jul	4	21-Jul
70	Dhanam.G	26	772756F	og5	48	159	18.99	39+2	primi	22-Jul	23.45	22-Jul
71	Jeevitha	24	996920D	og3	70.3	155	29.26	40+2	multi	23-Jul	23.4	23-Jul
72	Sathya	27	838072D	og3	55	164	20.45	40+3	multi	24-Jul	1.3	24-Jul
73	Ayisha Bee	23	255044F	og3	70	170	24.22	37+6	multi	25-Jul	0.25	25-Jul
74	Gomathi	27	817644F	og5	59.8	153	25.55	40+4	primi	26-Jul	10.3	26-Jul
75	Nithya	25	866864F	og5	57	163	21.45	38+2	primi	27-Jul	11.1	27-Jul
76	Nasrin	20	713747F	og3	70	157	28.4	40+2	primi	28-Jul	5	28-Jul
77	Sathya.B.R	29	793099F	og3	51.7	164	19.22	39+3	primi	29-Jul	4.3	29-Jul
78	Shenbegam	25	012354F	og5	66.5	150	29.56	39+6	multi	30-Jul	12	30-Jul
79	Nazreen.N	26	812799F	og5	62	175	20.24	40+1	multi	31-Jul	12.3	31-Jul
80	Vimala.V	30	773861F	og5	50.2	155	20.89	40+5	primi	1-Aug	23.45	1-Aug
81	Gayathri	23	789260F	og4	55	168	19.49	38+1	primi	2-Aug	16.45	2-Aug
82	Rajalakshmi	28	854706F	og5	57.4	174	18.96	39	primi	3-Aug	11.45	3-Aug
83	Sangeetha	29	344158C	og4	62.3	159	24.64	40+1	multi	4-Aug	5	4-Aug
84	Nirmala	22	791803F	og5	49.2	157	19.96	39	primi	5-Aug	2	5-Aug
85	Kavitha	25	746448F	og5	60.2	152	26.06	40+2	primi	6-Aug	18.4	6-Aug
86	Saraswathy	25	990082D	og3	66.52	153	28.42	40	multi	7-Aug	11	7-Aug
87	gajalakshmi	26	460978D	og3	64	153	27.34	39+1	multi	8-Aug	21.48	8-Aug
88	Vijayalakshmi	24	769808F	og4	57	154	24.03	39+2	primi	9-Aug	10.15	9-Aug
89	Mahalakshmi	30	436277D	og3	51	157	20.69	38+6	multi	10-Aug	20.3	10-Aug
90	Uma	27	155332F	og5	56.6	150	25.16	38+6	multi	11-Aug	4.4	11-Aug
91	Saranya	26	778871F	og3	54.3	164	20.19	37+6	primi	12-Aug	4.1	12-Aug
92	Lalithya	22	788958f	og3	49.6	155	20.65	39+4	primi	13-Aug	3.45	13-Aug
93	Poonkodi	31	499170F	og3	52	149	23.42	40+2	multi	14-Aug	1.5	14-Aug
94	Kavitha	29	070078F	og5	76	159	30.06	40+3	multi	15-Aug	10.5	15-Aug
95	Kotteswari	28	857125F	og5	64.9	151	28.46	40+2	primi	16-Aug	12.1	16-Aug
96	Deepalakshmi	27	770029F	og5	61	154	25.72	40	primi	17-Aug	17.15	17-Aug
97	Kavitha.C	22	864743F	og4	79	157	32.05	39	primi	18-Aug	20.4	18-Aug
98	Kowsalya	21	216331F	og5	73	165	26.81	40	multi	19-Aug	21.5	19-Aug
99	Sumitra	23	510534F	og3	49.26	156	20.24	40	primi	20-Aug	3.4	20-Aug
100	Pavitra	28	041594D	og3	53.4	162	20.35	40+2	multi	21-Aug	5	21-Aug
101	Thenmozhi	24	760241f	og4	50.2	152	21.73	40+2	primi	22-Aug	20.05	22-Aug
102	Sathiya	27	266681F	og5	51	140	26.02	38+1	multi	23-Aug	17.35	23-Aug
103	Sivasankari	32	987276D	og3	73.6	157	29.86	40+1	multi	24-Aug	13.15	24-Aug
104	Gomathy	22	932145C	og4	50	155	20.81	39+2	multi	25-Aug	6.45	25-Aug
105	Nithya	26	057425C	og5	48.2	163	18.14	38+6	primi	26-Aug	8	26-Aug
106	Vasanthi	25	794716F	og4	50.7	160	19.8	39	primi	27-Aug	11.3	27-Aug
107	Indu	19	911477F	og3	63	149	28.38	40+5	primi	28-Aug	21	28-Aug
108	Arul Jothi	22	278161F	og4	63.6	154	26.82	40+3	multi	29-Aug	11.1	29-Aug
109	Elavarkuzhali	33	863497F	og5	49	154	20.66	39+2	primi	30-Aug	19	30-Aug
110	Nandini	32	466799D	og5	74.4	160	29.06	40+2	multi	31-Aug	19.4	31-Aug
111	Anitha	26	726283F	og5	54	160	21.09	39+1	primi	1-Sep	0.5	1-Sep
112	vijayalakshmi	25	787486F	og3	49.8	159	19.7	38+5	primi	2-Sep	20.2	2-Sep
113	Tamilarasi	22	911493F	og4	51	145	24.26	40+3	primi	3-Sep	8.15	3-Sep
114	Tamilselvi	27	874631F	og4	58.08	146	27.25	39+4	primi	4-Sep	13.45	4-Sep
115	Masiya Begum	21	106062F	og5	53.9	152	23.33	40+1	multi	5-Sep	16.3	5-Sep
116	Kalairasi	27	880527F	og5	57.26	154	24.14	39+4	primi	6-Sep	2.4	6-Sep
117	Kamalavathy	24	768840F	0g5	66.7	157	27.06	40+1	primi	7-Sep	12.15	7-Sep
118	Yamini Sravanthi	26	851420F	og3	108.82	172	36.78	40+2	primi	8-Sep	17	8-Sep

119	Naveetha	21	327736F	og5	53	165	19.47	38+4	multi	9-Sep	11.3	9-Sep
120	Zainab.Y	19	896309F	og3	58.5	159	23.14	40+6	primi	10-Sep	8.3	10-Sep
121	Chandrakala	24	097711F	og5	65	162	24.77	39+5	multi	11-Sep	12.3	11-Sep
122	Sarasu	24	913140F	og5	56.4	160	22.03	40+2	primi	12-Sep	8.3	12-Sep
123	Afia Tazeen.M	22	826894F	og3	69.4	147	32.12	40+5	primi	13-Sep	9.3	13-Sep
124	Mythili.A	28	845495F	og5	49	165	18	40	primi	14-Sep	14.3	14-Sep
125	Selvi.T	23	770571F	og5	52	153	22.21	39+2	primi	15-Sep	18.5	15-Sep
126	Revathi	26	913160F	og3	53	150	23.56	38+2	primi	16-Sep	19	16-Sep
127	Kotteswari	30	784585C	og3	63.28	155	26.34	40+1	multi	17-Sep	8.2	17-Sep
128	Swatika	21	060287B	og5	54.88	156	22.55	40+3	primi	18-Sep	8.3	18-Sep
129	Liji.S.R	30	715010d	og3	50.6	148	23.1	39+3	primi	19-Sep	13	19-Sep
130	Saranya	25	259903D	og3	76.9	164	28.59	40+4	primi	20-Sep	2.25	20-Sep
131	Reddy prasanna	22	894411F	og5	62.26	160	24.32	40+4	primi	21-Sep	2.4	21-Sep
132	Divya	24	874700F	og4	84	160	32.81	39+6	primi	22-Sep	21.5	22-Sep
133	Kanchana	27	887089F	og4	65.1	166	23.62	39+5	primi	23-Sep	4.18	23-Sep
134	Sarala	24	088640F	og5	51	164	18.96	39+5	multi	24-Sep	12	24-Sep
135	Nithya	29	879949F	og3	63	155	26.22	40+2	multi	25-Sep	2	25-Sep
136	vanisri.B	23	208772F	og3	48.8	151	21.4	38+2	multi	26-Sep	7	26-Sep
137	Shobana.S	25	455140D	og4	57	157	23.12	40+5	multi	27-Sep	0.4	27-Sep
138	J.Brindha	27	771435F	og4	55	158	22.03	40+2	primi	28-Sep	17	28-Sep
139	Saranya	21	806881F	og3	53.3	160	20.82	40+2	primi	29-Sep	12.3	29-Sep
140	Vinnarasi	26	828681f	og5	54	154	22.77	40	primi	30-Sep	13	30-Sep
141	Mubeena	21	913927F	og3	57	150	25.33	41	primi	1-Oct	20	1-Oct
142	Roja	23	496556F	og4	37.2	148	16.98	37+4	primi	2-Oct	16.3	2-Oct
143	A.Malin	21	163979B	og4	65	161	25.08	39+2	multi	3-Oct	20.2	3-Oct
144	Hemalatha2	31	959818D	og4	85	162	32.39	40+1	multi	4-Oct	21.2	4-Oct
145	Mahalakshmi	18	782241F	og3	52	151	22.81	40+6	primi	5-Oct	7.05	5-Oct
146	Abirami	27	837656F	og5	85.3	164	31.71	39+5	primi	6-Oct	2	6-Oct
147	Nithya	27	802785F	og3	59	158	23.63	40	primi	7-Oct	10	7-Oct
148	Gowri	23	847958F	og5	54	157	21.91	39+6	primi	8-Oct	17.15	8-Oct
149	Shaik Aisha	20	436978F	og3	53	165	19.47	39	primi	9-Oct	4.2	9-Oct
150	Jayalakshmi	28	794155F	og4	54	157	21.91	38	primi	10-Oct	15.35	10-Oct
151	Suguna	30	282257D	og3	50	157	20.28	39+4	primi	11-Oct	10.3	11-Oct
152	Vetriselvi	27	780424f	og5	51.6	160	20.16	40	primi	12-Oct	20.45	12-Oct
153	Sathiya	31	466205D	og3	62	160	24.22	39+3	multi	13-Oct	8.2	13-Oct
154	Prasanthi	25	781409F	og4	62.3	155	25.93	38+5	primi	14-Oct	9.45	14-Oct
155	Nermozhi	32	724007D	og3	68	160	26.56	40+1	multi	15-Oct	6.25	15-Oct
156	Abhinaya	23	293104F	og4	62	154	26.14	39+4	multi	16-Oct	18.1	16-Oct
157	Abirami	27	803687F	0g5	73.8	164	27.44	40+4	primi	17-Oct	4	17-Oct
158	Lakshmipriya	24	770377F	og3	55.6	155	23.14	40+5pr	primi	18-Oct	18	18-Oct
159	Rekha.M	24	814446F	og4	46	157	18.66	40+5	primi	19-Oct	21.1	19-Oct
160	Mangala Nayagi	20	807002F	og3	70	165	25.71	37+2	primi	20-Oct	22.5	20-Oct
161	Niranjana	25	331225F	og5	84.7	167	30.37	39+4	primi	21-Oct	7.3	21-Oct
162	Suryadarshini	27	771325F	og3	73	166	26.49	40+3	primi	22-Oct	2.25	22-Oct
163	Leelavathi	23	855581F	og4	50.8	156	20.87	40+2	primi	23-Oct	4.4	23-Oct
164	Aakifa Banu	30	130148F	og5	62.8	162	23.93	38+3	multi	24-Oct	14.2	24-Oct
165	Shyamala	29	810081F	og5	55.7	158	22.31	39+1	multi	25-Oct	22.4	25-Oct
166	Archana	20	797131F	og3	61	172	20.62	40+1	primi	26-Oct	3.1	26-Oct
167	Sudha	35	855551F	og5	48	153	20.5	39+5	primi	27-Oct	5	27-Oct
168	Sujitha	21	781534F	og4	63.8	157	25.88	38+1	primi	28-Oct	22.1	28-Oct
169	Pavitra	20	239349F	og4	59.2	155	24.64	40	primi	29-Oct	3.3	29-Oct
170	Jayanthi	28	913956F	og3	77.5	158	31.04	41	primi	30-Oct	5.2	30-Oct
171	Suganya	23	015377G	og3	47.4	147	21.94	39+5	primi	31-Oct	0.2	31-Oct
172	Rajalakshmi	31	846495F	og3	72.6	162	27.66	40+2	primi	1-Nov	18.3	1-Nov
173	Savitri	23	384927F	og5	79	160	30.86	40+1	multi	2-Nov	18.2	2-Nov
174	Mahalakshmi	31	505267D	og5	66	157	26.78	38+6	multi	3-Nov	23.35	3-Nov
175	Durga	23	837291F	og4	43.7	150	19.42	39	multi	4-Nov	18.5	4-Nov
176	Sumathi	25	788580F	og5	37.3	148	17.03	40+4	primi	5-Nov	9.3	5-Nov
177	Sasikala	21	765358F	0g4	56.3	167	20.19	39+4	primi	6-Nov	1.2	6-Nov
178	Suriyabala	20	758455F	og5	79	162	30.1	39+3	primi	7-Nov	13.1	7-Nov
179	Subadra	30	509464F	og3	53.7	152	23.24	40+3	primi	8-Nov	22.1	8-Nov
180	vaishnavi	24	790530F	og4	47.4	147	21.94	38+3	primi	9-Nov	21.15	9-Nov
181	Vishalachi	22	769342F	og4	40	153	17.09	40+3	primi	10-Nov	6	10-Nov

182	Sathya	22	675020F	og5	41.2	149	18.56	40+5	primi	11-Nov	17.45	11-Nov
183	Priya	23	565068D	og4	35.61	149	16.04	37+6	primi	12-Nov	22.2	12-Nov
184	Selvi	24	903766F	og5	61	156	25.07	40+3	primi	13-Nov	18.1	13-Nov
185	Lavanya	20	708218F	og5	62	165	22.77	39	primi	14-Nov	10	14-Nov
186	Sravanthi	28	796105F	og5	53.4	152	23.11	40+6	primi	15-Nov	11.12	15-Nov
187	Aghila	27	462308D	og4	66	155	27.47	39+6	primi	16-Nov	21.5	16-Nov
188	Shoba.S	25	775121F	og4	44.3	152	19.17	39+3	primi	17-Nov	0.2	17-Nov
189	Farzana Begum	20	716877F	og3	64	156	26.3	39+1	primi	18-Nov	5.35	18-Nov
190	Brinda.M	29	361709B	og5	68	166	24.68	40+1	primi	19-Nov	15.3	19-Nov
191	Hemamalini	24	277021F	og5	59.4	163	22.36	40+6	multi	20-Nov	8.4	20-Nov
192	Kala	28	839763F	og3	86.3	159	34.14	40+1	primi	21-Nov	0.45	21-Nov
193	Rajeswari	25	760897F	og3	79	164	29.37	39+3	primi	22-Nov	14.3	22-Nov
194	Ranjini	24	855847C	og3	64.6	156	26.55	38+3	multi	23-Nov	21.15	23-Nov
195	Vimala	40	334410F	og5	53.2	150	23.64	39+3	primi	24-Nov	12	24-Nov
196	Gayathri	19	798012F	og5	53	151	23.24	40+4	primi	25-Nov	4	25-Nov
197	Lavanya	25	903744F	og5	70.3	154	29.64	38+1	primi	26-Nov	19.4	26-Nov
198	Kedhareswari	20	777902F	og3	62	166	22.5	40+3	primi	27-Nov	5.1	27-Nov
199	Sindhu.A	24	697373f	og3	60	166	21.77	40+5	primi	28-Nov	2.55	28-Nov
200	Rosaline	30	475491D	og4	58	158	23.23	40+6	multi	29-Nov	0.45	29-Nov
201	Saraswathi	25	961435D	og5	46.2	158	18.51	40+6	multi	30-Nov	14.3	30-Nov
202	Selvalakshmi	21	723722F	og3	39.68	150	17.64	40+5	primi	1-Dec	1.05	1-Dec
203	Lakshmi Prasanna	27	983791D	og5	72	162	27.43	40+1	multi	2-Dec	11	2-Dec
204	Devika	28	922262D	og3	59.4	142	29.46	39+6	multi	3-Dec	12	3-Dec
205	Myvizhi	22	778651F	og5	54.9	147	25.41	39+5	primi	4-Dec	11	4-Dec
206	Vijayalakshmi	26	746501F	og3	44.5	151	19.52	40+2	primi	5-Dec	12.2	5-Dec
207	Sirajunnisa	22	601733F	og4	71	158	28.44	40+2	primi	6-Dec	4.45	6-Dec
208	Lakshmi.B	29	749037D	og5	63	164	23.42	38+2	multi	7-Dec	11	7-Dec
209	Swapna	27	673683D	og3	79	159	31.25	40+2	multi	8-Dec	2	8-Dec
210	Komathi	26	855722D	og3	48.2	148	22.01	39+2	multi	9-Dec	5.3	9-Dec
211	Arularasi	22	364309F	og3	61.86	155	25.75	41+2	multi	10-Dec	10.2	10-Dec
212	Sangeetha	24	094203F	og5	52	154	21.93	40+1	multi	11-Dec	10.35	11-Dec
213	Santhini	29	317171D	og5	60	160	23.44	39+5	multi	12-Dec	4.5	12-Dec
214	Loganayaki.S	25	394011D	og5	81.5	161	31.44	39+3	multi	13-Dec	10.1	13-Dec
215	Jayalakshmi	27	808587F	og5	68.5	166	24.86	37+6	primi	14-Dec	17.2	14-Dec
216	Manimegalai	29	783365F	og5	64.9	151	28.46	38+2	multi	15-Dec	17	15-Dec
217	Sandhyarani	29	766566F	og4	65	161	25.08	40+6	primi	16-Dec	16.2	16-Dec
218	Beauty	30	694628F	og5	60	159	23.73	38+2	primi	17-Dec	4.1	17-Dec
219	papitha	30	892928D	og3	81.4	155	33.88	38	multi	18-Dec	8.3	18-Dec
220	jasmine Margret Mano	28	472658A	og3	87.9	162	33.49	40+2	multi	19-Dec	3.15	19-Dec
221	Indumathi	24	692791F	og4	59	156	24.24	40+4	primi	20-Dec	5.2	20-Dec
222	Nafeesa Gouse	26	760705F	og5	49.6	155	20.65	38+4	primi	21-Dec	20.15	21-Dec
223	Namrata Reena	31	119284D	og5	64.4	150	28.62	40+4	multi	22-Dec	11.5	22-Dec
224	Sabura.J	28	903742F	og5	80	155	33.3	38+3	primi	23-Dec	18.45	23-Dec
225	Muneera	22	906320F	og3	58.9	160	23.01	39+1	primi	24-Dec	23.25	24-Dec
226	Kalaivani	32	380131D	og3	60.7	154	25.59	39+4	multi	25-Dec	6	25-Dec
227	Divya Aravindkumar	23	837671F	og3	69	164	25.65	39+2	primi	26-Dec	11.05	26-Dec
228	Srinisha	19	771902F	og3	53.1	155	22.1	40+4	primi	27-Dec	5.5	27-Dec
229	Umamaheswari	24	705200F	og3	52.7	155	21.94	39+6	primi	28-Dec	1.3	28-Dec
230	Monisha	29	854464F	og3	68	140	34.69	40+2	primi	29-Dec	1.35	29-Dec
231	Anitha	19	906322F	og3	73	148	33.33	39+5	primi	30-Dec	0.5	30-Dec
232	Sangeetha	22	783468D	og4	60.5	160	23.63	40+2	multi	31-Dec	6	31-Dec
233	Vimala	23	795665F	og5	57	150	25.33	39+2	primi	1-Jan	2.35	1-Jan
234	Revathi	20	906347F	og3	85	165	31.22	38	primi	2-Jan	14.3	2-Jan
235	Thilagavathy	31	834823F	og3	57	156	23.42	39+4	primi	3-Jan	10.4	3-Jan
236	Shabana Yasmin	23	760554F	og4	55.4	154	23.36	38+3	primi	4-Jan	2.45	4-Jan
237	Bhuvaneswari	27	228911F	og3	69.6	152	30.12	39	multi	5-Jan	8.45	5-Jan
238	Shalini	24	702426F	og3	65	162	24.77	39+5	primi	6-Jan	11.2	6-Jan
239	Geetha	31	698848F	0g3	33	153	14.1	40	primi	7-Jan	16.15	7-Jan
240	Saranya	20	126372F	og3	67.2	160	26.25	39+5	primi	8-Jan	10.3	8-Jan
241	Vasumathi	33	057942D	og3	79	165	29.02	38+2	multi	9-Jan	21.15	9-Jan
242	Asha	27	650177D	og5	45.4	150	20.18	40	multi	10-Jan	10.45	10-Jan

243	Usha	24	856947F	og5	81.9	169	28.68	40+2	primi	11-Jan	14	11-Jan
244	Manjula	29	796173D	og5	62	159	24.52	39+5	multi	12-Jan	3.25	12-Jan
245	Meena	25	908074F	og4	68.3	160	26.68	40+4	primi	13-Jan	11.45	13-Jan
246	Lavanya	26	729672F	0g4	47.9	157	19.43	40+3	primi	14-Jan	16	14-Jan
247	mumtaz	24	724572A	og3	61.3	159	24.25	39+2	primi	15-Jan	9.4	15-Jan
248	Pattu	21	324945f	og5	65	158	26.04	38	primi	16-Jan	15.55	16-Jan
249	Sonipriya	26	249788D	og5	74.2	159	29.35	38+4	primi	17-Jan	18	17-Jan
250	Tapsira	20	136516B	og5	81	159	32.04	40+2	primi	18-Jan	12.5	18-Jan
251	jayasree	21	722008F	og5	43	144	20.74	40	primi	19-Jan	18.3	19-Jan
252	Pavithra	22	854816F	og5	60.5	160	23.63	40+4	primi	20-Jan	4.15	20-Jan
253	Mujitha Banu	29	681310D	og5	61	148	27.85	37+4	multi	21-Jan	15	21-Jan
254	Malin.N	25	818672F	og4	60	162	22.86	40+2	PRIMI	22-Jan	21.15	22-Jan
255	Priyanka22	22	873599F	og4	90.4	155	37.63	40+2	primi	23-Jan	1	23-Jan
256	Guna	24	012960F	og4	66.5	162	25.34	40+3	multi	24-Jan	3.3	24-Jan
257	Deepika	19	825063F	og3	52	152	22.51	37+1	primi	25-Jan	22.3	25-Jan
258	Renuka	22	724366F	og5	52	158	20.83	39+2	multi	26-Jan	23.45	26-Jan
259	Lakshmi Devi	22	000386F	og5	57	155	23.73	37+1	primi	27-Jan	21.3	27-Jan
260	Priyadarshini	32	688060D	og3	65	151	28.51	40+3	multi	28-Jan	5	28-Jan
261	Pavitra	22	854816F	og5	60	160	23.44	40+4	primi	29-Jan	4.15	29-Jan
262	Anitha	22	113823F	og5	66.4	153	28.37	39+5	multi	30-Jan	8	30-Jan
263	Bhuvanalakshmi	26	654059D	og4	58.1	159	22.98	40+5	primi	31-Jan	4	31-Jan
264	Saranya	27	908714F	og3	83.9	162	31.97	40+1	multi	1-Feb	23.3	1-Feb
265	Princy selva Mary	22	268030D	og5	56	160	21.87	37+3	primi	2-Feb	13.3	2-Feb
266	Pratheepa	24	848501F	og3	71.8	156	29.5	39+5	primi	3-Feb	5.2	3-Feb
267	Dharmadevi	34	421917f	og5	59	165	21.67	38+4	primi	4-Feb	3.55	4-Feb
268	Ambikavathy	25	908728F	og3	44	151	19.3	39+5	primi	5-Feb	8.4	5-Feb
269	Teena	29	577266C	og4	51	158	20.43	39+5	primi	6-Feb	6.3	6-Feb
270	Aayisha Siddhiqua	21	716591F	og5	50	160	19.53	38+2	primi	7-Feb	15	7-Feb
271	Porselvi Loganathan	27	867602F	og3	74.4	160	29.06	40	primi	8-Feb	23.05	8-Feb
272	Yogavalli.R	30	794226F	og3	59	158	23.63	39+5	primi	9-Feb	11.3	9-Feb
273	Aamira	23	761934F	og5	51	164	18.96	39+1	primi	10-Feb	11	10-Feb
274	Rekha	26	744029F	og5	57	154	24.03	40	primi	11-Feb	4.43	11-Feb
275	Hajira Banu	19	766705f	og5	40	144	19.29	39+1	primi	12-Feb	4.3	12-Feb
276	Sasikala	32	961698C	og5	52	154	21.93	39+4	primi	13-Feb	3	13-Feb
277	Vijayalakshmi	29	003968F	og5	77	155	32.05	40+2	multi	14-Feb	3.45	14-Feb
278	Ezhilarasi.V	23	135555F	og5	48	151	21.05	39+1	multi	15-Feb	9.4	15-Feb
279	Subhashree	26	774833F	og3	64	156	26.3	39+6	primi	16-Feb	11	16-Feb
280	Punitha	27	895730F	og4	57.08	150	25.37	40+1	primi	17-Feb	11.1	17-Feb
281	Sukanya.G	20	850783F	og4	59.6	155	24.81	40+2	primi	18-Feb	5	18-Feb
282	Divya.B	23	874131D	og4	57	168	20.2	40+4	multi	19-Feb	21.15	19-Feb
283	Rajeswari	21	911462F	og3	60	165	22.04	40+4	primi	20-Feb	17.3	20-Feb
284	Bharathi	25	911463F	og3	64	153	27.34	40+4	primi	21-Feb	17.2	21-Feb
285	Anitha	28	779660F	og3	64.8	158	25.96	39	multi	22-Feb	16.3	22-Feb
286	Saritha	21	794709F	og3	59	160	23.05	40+2	primi	23-Feb	11	23-Feb
287	Junaitha Banu	20	791814F	og5	55.6	155	23.14	40+2	primi	24-Feb	20	24-Feb
288	Angel	27	007850G	og5	73.9	164	27.48	40+4	multi	25-Feb	19.35	25-Feb
289	Sundari	28	175428C	og5	72.2	160	28.2	39+4	multi	26-Feb	13.3	26-Feb
290	Malini.V	30	799864f	og3	44.5	149	20.04	40+1	multi	27-Feb	22.2	27-Feb
291	Ezhilarasi	25	865719F	og3	76	165	27.92	40+3	primi	28-Feb	3.5	28-Feb
292	Nathiya	24	746392F	og5	81.9	155	34.09	40	multi	1-Mar	4.15	1-Mar
293	Kalpana	20	809718F	og5	45.3	152	19.61	40+5	primi	2-Mar	0.25	2-Mar
294	Mashkura Noushin	22	776401F	og5	50.8	158	20.35	39	primi	3-Mar	7.45	3-Mar
295	Rizwana	21	034553F	og4	58	155	24.14	40+5	primi	4-Mar	1.35	4-Mar
296	Rekha	24	878762F	og3	48	164	17.85	39+1	primi	5-Mar	14.15	5-Mar
297	Bimineni Jeeva	27	837175F	og5	74	162	28.2	40+3	primi	6-Mar	1.1	6-Mar
298	Durga	26	307881F	og5	58	155	24.14	40+4	multi	7-Mar	23	7-Mar
299	Sandhiya.K	23	845577F	og5	49.1	152	21.25	40+4	primi	8-Mar	0.3	8-Mar
300	Divya Bharathi	24	861053F	og3	67.8	154	28.59	39+5	primi	9-Mar	17	9-Mar
301	Vidhyakumari	28	846186F	og5	69.6	162	26.52	39+3	primi	10-Mar	18.3	10-Mar
302	Saranya Bhoopalan26	26	864060F	og5	74.8	166	27.14	39+2	primi	11-Mar	3	11-Mar
303	Riswana	26	675436D	og4	81.6	160	31.87	40+6	multi	12-Mar	19	12-Mar

304	Dhivya Bharathi	23	179099F	og5	56	154	23.61	39+3	multi	13-Mar	16.15	13-Mar
305	Sabeitha.A	27	760956F	og5	38.9	154	16.4	38+6	primi	14-Mar	21.3	14-Mar
306	Divya	19	843274F	og3	52	157	21.1	41+2	primi	15-Mar	16.3	15-Mar
307	Yogeetha	24	829862F	og5	81.8	157	33.19	39+6	primi	16-Mar	9.1	16-Mar
308	Aaliya Parveen	26	803645F	og4	59	167	21.16	38+3	primi	17-Mar	16	17-Mar
309	AshA	21	829387f	OG5	53	156	21.78	40	PRIMI	18-Mar	18.2	18-Mar
310	Gowri	27	204903F	og4	70	155	29.14	37+5	multi	19-Mar	19.45	19-Mar
311	Nargis Nousheen	26	896050F	og5	77.08	165	28.31	38+5	primi	20-Mar	18.3	20-Mar
312	Fathima	23	756117D	og5	48.6	163	18.29	38+5	multi	21-Mar	17.1	21-Mar
313	Eswari	24	913903F	og4	60	150	26.67	41+1	multi	22-Mar	16.2	22-Mar
314	Soniya	24	779971F	og4	52.7	155	21.94	40	primi	23-Mar	12	23-Mar
315	Kalpana	29	869912D	og4	56.7	150	25.2	40+2	multi	24-Mar	11.45	24-Mar
316	Shanti	28	286933F	og5	48	150	21.33	39+3	multi	25-Mar	22.4	25-Mar
317	Mounika	22	834769F	og4	58	155	24.14	40+3	primi	26-Mar	14	26-Mar
318	Madeena	20	797832F	og3	46.6	158	18.67	40+3	primi	27-Mar	3.45	27-Mar
319	Kalayarasi	21	943008D	og3	80	166	29.03	38+1	multi	28-Mar	16.15	28-Mar
320	Sudha	24	429696D	og3	44	162	16.77	39+1	multi	29-Mar	22.3	29-Mar
321	Naziya Samreen	22	000992F	og4	87.1	165	31.99	38+4	primi	30-Mar	23	30-Mar
322	Dharani	24	778888F	og3	48.1	150	21.38	41	primi	31-Mar	1.3	31-Mar
323	Malathi	24	570106D	og5	57.4	162	21.87	38+6	primi	1-Apr	16.3	1-Apr
324	Gomathy	29	148287F	og3	80	162	30.48	38+2	multi	2-Apr	14.3	2-Apr
325	Jamuna Rani	20	351494f	og5	56	157	22.72	39+4	multi	3-Apr	5.1	3-Apr
326	Shanti.M	27	849493D	og5	60	152	25.97	39+5	multi	4-Apr	6.2	4-Apr
327	Jansi Rani	27	913960F	0g3	60.3	820.14	23.28	38+2	primi	5-Apr	23.53	5-Apr
328	Nabeela Anjum	23	817935F	og5	85.2	156	35.01	40+5	primi	6-Apr	11.3	6-Apr
329	Sivapriya	23	793604f	og5	49	152	21.21	39	primi	7-Apr	15.3	7-Apr
330	Saraswathi	19	807370F	og5	54.7	158	21.91	40+4	primi	8-Apr	22	8-Apr
331	Ramya	19	031540G	0g5	93	157	37.73	38+6	primi	9-Apr	19.15	9-Apr
332	Amala Punithakumari	23	870374A	og5	72	148	32.87	40+3	primi	10-Apr	14	10-Apr
333	Jansi Rani	25	254579D	og4	57.98	161	22.37	39+1	multi	11-Apr	8	11-Apr
334	Azhwar Nachiyar	25	899956F	og4	82.9	154	34.96	40+4	primi	12-Apr	6.3	12-Apr
335	Pavithra	24	748925D	og5	58	150	25.78	39+2	multi	13-Apr	16.2	13-Apr
336	Priyanka	25	831605F	og5	75	167	26.89	37+1	primi	14-Apr	12.15	14-Apr
337	Tahira	21	770650F	og3	52	165	19.1	39+5	primi	15-Apr	13.35	15-Apr
338	Priya	20	899806F	og4	57.9	158	23.19	38+5	primi	16-Apr	21.3	16-Apr
339	Gayathri	28	705235D	og5	54.7	153	23.37	40+6	primi	17-Apr	11.3	17-Apr
340	Kavitha.K	30	878301F	og5	71.4	154	30.11	40	primi	18-Apr	14.3	18-Apr
341	Devi.P	27	074286F	og5	65.9	152	28.52	39+1	multi	19-Apr	4	19-Apr
342	Sultana	25	812289F	og5	58	158	23.23	40+5	primi	20-Apr	12.3	20-Apr
343	Lalitha.R	24	829789F	og5	66	165	24.24	40+1	primi	21-Apr	3.4	21-Apr
344	Anitha	25	433868D	og3	58.8	142	29.16	39+1	multi	22-Apr	2.1	22-Apr
345	Banupriya	24	650139F	og3	83	164	30.86	40+5	primi	23-Apr	16	23-Apr
346	Poornima.P	27	510174F	og3	49.2	161	18.98	39+6	primi	24-Apr	11.55	24-Apr
347	Dhanalakshmi	26	010432G	og5	66	160	25.78	39+3	primi	25-Apr	15.15	25-Apr
348	Kershial.V	25	826521F	og3	65.8	160	25.7	40+5	primi	26-Apr	22.2	26-Apr
349	Bhuvaneswari	25	893686F	og4	67.46	154	28.44	39+1	primi	27-Apr	0.3	27-Apr
350	Kalaiselvi	28	938161D	og4	48	154	20.24	38+5	multi	28-Apr	18.25	28-Apr
351	Komathi.R	26	647385F	og3	55.4	160	21.64	40+1	primi	29-Apr	11.2	29-Apr
352	Amuda	28	224390F	og5	47	150	20.89	38	multi	30-Apr	3.3	30-Apr
353	Sarala	27	335070F	og4	77	168	27.28	40	multi	1-May	14.3	1-May
354	Sangeetha	25	020803G	og5	56	157	22.72	40	primi	2-May	8.45	2-May
355	Malathi	36	882260F	og3	73.04	153	31.2	39+5	multi	3-May	8.1	3-May
356	Revathi	28	827075F	og4	66	162	25.15	40+3	primi	4-May	20.4	4-May
357	Veena	26	790330F	og4	61.4	157	24.91	38+2	multi	5-May	22.2	5-May
358	Jeeva	34	147582F	og4	63.1	163	23.75	40+2	multi	6-May	21.55	6-May
359	Rehana Begum	32	850396D	og4	46	152	19.91	39	multi	7-May	14.5	7-May
360	Anitha	26	782874F	og5	43.9	152	19	40+2	primi	8-May	10.2	8-May
361	Kubra	21	040023G	og5	62.2	159	24.6	40+3	multi	9-May	8.3	9-May
362	Sandhiya	20	794947F	og5	54	158	21.63	39	primi	10-May	20	10-May
363	Jayabharati	25	299233F	og3	69	154	29.09	40+3	multi	11-May	16.3	11-May
364	Selvi	22	916746F	og3	68	155	28.3	40+1	primi	12-May	2.5	12-May
365	Saraswathi.K.G	30	646258D	og5	60.8	152	26.32	38+3	multi	13-May	7.45	13-May

366	Supriya	27	791955F	og3	58.6	160	22.89	39+4	primi	14-May	17	14-May
367	Renuka	23	800831F	og5	57	152	24.67	40+4	primi	15-May	15.11	15-May
368	Khataijul Kubra	21	783985F	og4	79.8	154	33.65	40+2	primi	16-May	9	16-May
369	Swetha	26	714513B	og4	51.1	157	20.73	38+2	primi	17-May	15.4	17-May
370	Catherine Sujatha	27	480533C	og5	71	163	26.72	39	multi	18-May	18.15	18-May
371	Jayanthi	34	035718G	og3	61.8	155	25.72	36+6	primi	19-May	7.05	19-May
372	Sumalatha	27	796770F	og4	49.6	152	21.47	39+4	primi	20-May	18	20-May
373	Saranya.D	25	769888F	og5	58.2	150	25.87	40+4	primi	21-May	6.3	21-May
374	Gowri	25	196317F	og4	87.28	153	37.28	40+5	multi	22-May	5	22-May
375	Afrin Banu	23	009270F	og4	63	166	22.86	38+3	multi	23-May	22.45	23-May
376	Subhasree.K	28	884400F	0g5	69.5	157	28.2	38+5	primi	24-May	23.15	24-May
377	Reena	28	916761F	og3	60.3	158	24.15	41	multi	25-May	8.4	25-May
378	Nirmala	28	941940D	og3	72	166	26.13	40+1	multi	26-May	14.3	26-May
379	Sudha	24	916711F	og5	72	154	30.36	39+6	primi	27-May	21	27-May
380	Saritha	24	916758F	og4	57.3	162	21.83	40+2	primi	28-May	17.3	28-May
381	Praveena	29	390868D	og5	84.5	165	31.04	39+2	primi	29-May	16.25	29-May
382	Nadhiya	21	164639F	og5	48.3	154	20.37	40+5	multi	30-May	15	30-May
383	Subhashini	26	830729F	og4	65	165	23.88	38+2	primi	31-May	9	31-May
384	Prabhavathy	29	226177F	og3	65	155	27.06	40+2	multi	1-Jun	20.05	1-Jun
385	Banupriya	21	865418F	og5	70.1	175	22.89	40+4	primi	2-Jun	15.3	2-Jun
386	Kalpana.K	26	829698F	og3	58.6	158	23.47	40+3	primi	3-Jun	17.4	3-Jun
387	Vasugi	21	093294F	og4	46	158	18.43	39+4	multi	4-Jun	21.2	4-Jun
388	Rizwana Sultana	19	031197F	0g5	75	160	29.3	40+2	primi	5-Jun	17	5-Jun
389	Bakkiya Lakshmi	26	812062F	og3	50.8	150	22.58	38+4	primi	6-Jun	17.4	6-Jun
390	Abitha	26	839140F	og4	84.4	166	30.63	39+3	primi	7-Jun	2.35	7-Jun
391	Aruna Naveen	31	947065C	og5	73	165	26.81	40+1	primi	8-Jun	6	8-Jun
392	Nirosha.K	24	868418F	og4	68	154	28.67	37+5	multi	9-Jun	15.3	9-Jun
393	Hemamalini	27	827045F	og5	46	172	15.55	40+2	primi	10-Jun	23.3	10-Jun
394	Amrin Taj	22	989780D	og4	90.3	168	31.99	40	multi	11-Jun	22.3	11-Jun
395	Sasi.P	33	802680F	og4	53	158	21.23	37+2	primi	12-Jun	18.2	12-Jun
396	Durgadevi	22	125751F	og4	74	156	30.41	40+2	multi	13-Jun	21.45	13-Jun
397	Abirami	27	803687F	og5	73.8	164	27.44	40+4	primi	14-Jun	4	14-Jun
398	Niranjana	25	331225F	og5	84.7	167	30.37	38+4	primi	15-Jun	7.3	15-Jun
399	Dheepika	23	880829F	og5	73.2	164	27.22	38+5	primi	16-Jun	23.45	16-Jun
400	Areena Banu	29	854185F	og5	50.4	152	21.81	40+1	primi	17-Jun	2.3	17-Jun
S.NO	name	age	hospital	unit	num	AMNI	MOD	IND	CLCH	ENDM	POH	RTP
1	arul jothi	33	105582c	og4	1	1	1	2	2	2	2	2
2	janani	27	143475f	0g3	1	2	2	1	2	2	2	2
3	Dhanalakshmi	37	687395d	og3	2	2	2	3	2	2	2	2
4	Sasirekha	28	778277D	og5	1	2	3		2	2	2	2
5	Pavithra	22	796890F	og4	1	2	2	1	1	1	1	2
6	Lakshmi	25	903757F	og3	1	2	1	2	2	2	2	2
7	thenmozhi	20	841462F	og5	1	2	2	1	2	2	2	2
8	Sharmila	31	278837F	og5	1	2	3		2	2	2	2
9	Sriselvi	29	195319D	og5	1	2	3		2	2	2	2
10	Janaki	26	705129f	og3	1	2	3		2	2	2	2
11	Dhanalakshmi	25	791378F	og3	1	2	3		2	2	2	2
12	Nasreen Banu	22			2	2	2	1	2	2	1	2
13	Devi	28	711512D	og5	1	2	3		2	2	2	2
14	Preethi.R	23	924361A	og3	1	2	3		2	2	1	2
15	Valli.A	33	682554F	og4	2	1	1	2	2	2	2	2
16	Ediga Jyothi	27	145163F	og5	1	2	2	1	2	2	2	2
17	Meenakshi.P	29	788771F	og4	2	2	2	1	1	2	2	2
18	Sumathi	30	768712F	og3	1	2	2	1	2	2	2	2
19	Kokila	21	806526F	og3	1	2	1	1	2	1	1	2
20	Saraswathi	28	671768D	og5	1	2	1	2	2	2	2	2
21	Revathi	21	855591F	og4	1	2	2	3	2	2	2	2
22	Kalpana	21	857014F	og5	1	2	1	2	2	1	1	2
23	Sathya	26	724159F	og3	1	2	3		2	2	2	2
24	Selin.J	34	138438D	og3	1	2	3		2	2	2	2
25	Rizwana Begum	26	816874F	og5	1	2	1	1	2	2	1	2
26	Gowthami	24	906325F	og5	1	2	2	3	2	2	2	2
27	Bhargavi	24	906319F	og3	1	2	1	1	2	2	2	2

28	Lavanya	23	184316F	og3	1	2	3		2	2	2	2
29	Sathya	30	086470F	og3	1	2	2	1	2	2	2	2
30	Tamizhselvi	24	863386F	og3	2	2	1	2	2	2	2	2
31	Lavanya.R	26	678059A	og4	1	2	2	1	2	2	2	2
32	Saranya	22	710308F	og5	1	2	1	2	2	2	2	2
33	Deepa	27	906378F	og3	1	2	3		2	2	2	2
34	Tharanibai	32	022675F	og3	1	2	3		2	2	2	2
35	Suganya.D	23	320513F	og5	1	2	1	2	2	1	2	2
36	Noorsalma Begum	24	823927F	og3	1	2	1	1	2	1	2	2
37	Haleema Mubarak	21	845402f	og3	2	2	3		2	2	2	2
38	vinitha	22	800297F	OG4	1	2	3		2	2	2	2
39	Zainap Begum	34	138826C	og4	1	2	3		2	2	2	2
40	Dasslumina	33	305924F	og4	1	2	2	3	2	2	2	2
41	Mageswari	22	989925D	og5	1	2	3		2	2	2	2
42	Epsiba Mary	24	793077B	og4	2	2	1	2	2	2	2	2
43	Amudha	19	723052F	og3	1	2	3		2	2	2	2
44	Tamizharasi	33	728057F	og5	2	1	1	1	2	2	2	2
45	Ramya	20	908701F	og4	2	2	1	2	2	2	1	2
46	Shyamala	21	715479F	og5	1	2	3		2	2	2	2
47	renugadevi	29	718139D	og4	2	1	2	1	2	2	2	2
48	Ryeana Banu	25	769453F	og5	1	2	3		2	2	2	2
49	Niranjana Devi	22	822299F	og3	1	2	1	2	2	1	1	2
50	Krishnaveni	24	908735F	og5	1	2	1	1	1	1	1	2
51	Nafeesa	31	928524D	og5	1	2	3		2	2	2	2
52	Noorjahan.H	26	864111F	og5	1	2	2	1	2	2	2	2
53	Arhana.E	21	748375F	og3	1	2	2	1	2	2	2	2
54	Malathi	29	719135F	og3	1	1	3		2	2	2	2
55	Indu.S	21	779095F	og5	1	2	2	1	2	2	2	2
56	priya	22	908750F	og3	1	2	2	1	2	2	2	2
57	Anjali.S	23	762819F	og5	1	2	3		2	2	2	2
58	Shakeera Banu	22	723259F	og5	1	2	1	1	1	1	2	2
59	Umavathy	26	723105F	og3	1	2	1	1	2	2	1	2
60	Saranya	22	760207F	og3	1	2	3		2	2	2	2
61	Rajeshwari	27	888641F	og4	1	1	1	1	2	2	2	2
62	Tabassum	26	725108F	og4	2	2	1	2	2	2	1	2
63	Nayemunnisa	24	729686F	og5	1	2	3		2	2	2	2
64	Nirmala.S	24	357269F	og5	1	2	2	1	2	2	2	2
65	Shakila	29	709660F	og5	1	2	2	1	2	2	2	2
66	Malarkodi	27	773362D	og4	1	2	3		2	2	2	2
67	Kanchana	31	823247F	og5	1	2	2	1	2	2	1	2
68	Thulasi.J.S	25	640460D	og5	1	2	1	1	2	2	2	2
69	Sruthi	26	744354F	og5	1	2	1	2	2	1	2	2
70	Dhanam.G	26	772756F	og5	1	2	2	3	2	2	2	2
71	Jeevitha	24	996920D	og3	1	2	2	3	2	2	2	2
72	Sathya	27	838072D	og3	1	2	3		2	2	2	2
73	Ayisha Bee	23	255044F	og3	1	2	3		2	2	2	2
74	Gomathi	27	817644F	og5	1	2	1	2	2	2	2	2
75	Nithya	25	866864F	og5	1	2	2	1	2	2	2	2
76	Nasrin	20	713747F	og3	1	2	2	1	2	2	2	2
77	Sathya.B.R	29	793099F	og3	1	2	2	1	2	2	2	2
78	Shenbegam	25	012354F	og5	1	2	3		2	2	2	2
79	Nazreen.N	26	812799F	og5	1	2	3		2	2	2	2
80	Vimala.V	30	773861F	og5	1	2	2	1	2	2	2	2
81	Gayathri	23	789260F	og4	1	2	1	1	2	1	2	2
82	Rajalakshmi	28	854706F	og5	1	2	3		2	2	2	2
83	Sangeetha	29	344158C	og4	1	2	3		2	2	2	2
84	Nirmala	22	791803F	og5	1	2	3		2	2	2	2
85	Kavitha	25	746448F	og5	1	2	1	1	1	2	2	2
86	Saraswathy	25	990082D	og3	1	2	3		2	2	2	2
87	gajalakshmi	26	460978D	og3	1	2	3		2	2	2	2
88	Vijayalakshmi	24	769808F	og4	1	2	3		2	2	2	2
89	Mahalakshmi	30	436277D	og3	1	2	3		2	2	2	2
90	Uma	27	155332F	og5	1	2	3		2	2	2	2

91	Saranya	26	778871F	og3	1	2	2	1	2	2	2	2
92	Lalithya	22	788958f	og3	1	2	3		2	2	2	2
93	Poonkodi	31	499170F	og3	1	2	3		2	2	2	2
94	Kavitha	29	070078F	og5	1	2	2	1	2	2	2	2
95	Kotteswari	28	857125F	og5	1	2	1	2	2	2	2	2
96	Deepalakshmi	27	770029F	og5	1	2	1	2	2	2	1	2
97	Kavitha.C	22	864743F	og4	1	2	3		2	2	2	2
98	Kowsalya	21	216331F	og5	1	1	3		2	2	2	2
99	Sumitra	23	510534F	og3	1	2	3		2	2	2	2
100	Pavitra	28	041594D	og3	1	2	3		2	2	2	2
101	Thenmozhi	24	760241f	og4	1	2	1	1	2	2	2	2
102	Sathiya	27	266681F	og5	1	2	3		2	2	2	2
103	Sivasankari	32	987276D	og3	1	2	3		2	2	2	2
104	Gomathy	22	932145C	og4	1	2	3		2	2	2	2
105	Nithya	26	057425C	og5	1	2	2	1	2	2	2	2
106	Vasanthi	25	794716F	og4	1	2	2	1	2	2	2	2
107	Indu	19	911477F	og3	1	2	1	1	1	1	2	2
108	Arul Jothi	22	278161F	og4	1	2	3		2	2	2	2
109	Elavarkuzhali	33	863497F	og5	1	2	3		2	2	2	2
110	Nandini	32	466799D	og5	1	2	3		2	2	2	2
111	Anitha	26	726283F	og5	1	2	3		2	2	2	2
112	vijayalakshmi	25	787486F	og3	1	2	1	1	2	2	2	2
113	Tamilarasi	22	911493F	og4	1	2	3		2	2	2	2
114	Tamilselvi	27	874631F	og4	1	2	2	2	2	1	1	2
115	Masiya Begum	21	106062F	og5	1	2	3		2	2	2	2
116	Kalairasi	27	880527F	og5	1	2	2	1	2	2	2	2
117	Kamalavathy	24	768840F	0g5	1	2	2	1	2	2	2	2
118	Yamini Sravanthi	26	851420F	og3	1	2	2	1	2	2	2	2
119	Naveetha	21	327736F	og5	1	2	3		2	2	2	2
120	Zainab.Y	19	896309F	og3	1	1	3		2	2	2	2
121	Chandrakala	24	097711F	og5	1	2	2	3	1	2	2	2
122	Sarasu	24	913140F	og5	1	2	1	1	2	2	2	2
123	Afia Tazeen.M	22	826894F	og3	1	2	1	1	2	2	2	2
124	Mythili.A	28	845495F	og5	1	2	3		2	2	2	2
125	Selvi.T	23	770571F	og5	1	2	3		2	2	2	2
126	Revathi	26	913160F	og3	1	2	3		2	2	2	2
127	Kotteswari	30	784585C	og3	1	2	3		2	2	2	2
128	Swatika	21	060287B	og5	1	2	1	1	2	2	2	2
129	Liji.S.R	30	715010d	og3	1	1	3		2	2	2	2
130	Saranya	25	259903D	og3	1	2	1	2	2	2	1	2
131	Reddy prasanna	22	894411F	og5	1	2	3		2	2	2	2
132	Divya	24	874700F	og4	1	2	3		2	2	2	2
133	Kanchana	27	887089F	og4	1	2	2	1	2	2	2	2
134	Sarala	24	088640F	og5	1	2	3		2	2	2	2
135	Nithya	29	879949F	og3	1	2	3		1	2	1	2
136	vanisri.B	23	208772F	og3	1	2	3		2	2	2	2
137	Shobana.S	25	455140D	og4	1	2	3		2	2	2	2
138	J.Brindha	27	771435F	og4	1	2	2	1	2	2	2	2
139	Saranya	21	806881F	og3	1	1	1	1	2	2	2	2
140	Vinnarasi	26	828681f	og5	2	2	2	1	2	2	2	2
141	Mubeena	21	913927F	og3	1	1	1	1	2	2	2	2
142	Roja	23	496556F	og4	1	2	3		2	2	2	2
143	A.Malin	21	163979B	og4	1	2	3		2	2	2	2
144	Hemalatha2	31	959818D	og4	1	1	3		2	2	2	2
145	Mahalakshmi	18	782241F	og3	1	2	3		2	2	2	2
146	Abirami	27	837656F	og5	1	2	2	1	2	2	2	2
147	Nithya	27	802785F	og3	2	2	2	1	2	2	2	2
148	Gowri	23	847958F	og5	1	2	3		2	2	2	2
149	Shaik Aisha	20	436978F	og3	1	2	2	1	2	2	2	2
150	Jayalakshmi	28	794155F	og4	1	2	2	1	1	2	2	2
151	Suguna	30	282257D	og3	2	2	2	1	2	2	2	2
152	Vetriselvi	27	780424f	og5	1	2	2	1	2	2	2	2
153	Sathiya	31	466205D	og3	1	2	3		2	2	2	2

154	Prasanthi	25	781409F	og4	1	2	3		2	2	1	2
155	Nermozhi	32	724007D	og3	1	2	3		2	2	2	2
156	Abhinaya	23	293104F	og4	1	2	3		2	2	2	2
157	Abirami	27	803687F	0g5	1	2	1	1	2	2	2	2
158	Lakshmipriya	24	770377F	og3	1	2	2	1	2	1	2	2
159	Rekha.M	24	814446F	og4	1	2	1	1	2	2	2	2
160	Mangala Nayagi	20	807002F	og3	1	2	3		2	2	2	2
161	Niranjana	25	331225F	og5	1	2	3		2	2	2	2
162	Suryadarshini	27	771325F	og3	2	2	1	2	1	2	2	2
163	Leelavathi	23	855581F	og4	1	2	2	1	1	1	2	2
164	Aakifa Banu	30	130148F	og5	1	2	3		2	2	2	2
165	Shyamala	29	810081F	og5	1	2	3		2	2	2	2
166	Archana	20	797131F	og3	1	2	3		2	2	1	1
167	Sudha	35	855551F	og5	1	2	1	1	2	2	2	2
168	Sujitha	21	781534F	og4	1	2	3		2	2	2	2
169	Pavitra	20	239349F	og4	1	1	1	2	2	2	1	2
170	Jayanthi	28	913956F	og3	1	2	1	2	1	2	2	2
171	Suganya	23	015377G	og3	1	2	3		2	2	2	2
172	Rajalakshmi	31	846495F	og3	1	2	2	1	2	2	2	2
173	Savitri	23	384927F	og5	1	2	3		2	2	2	2
174	Mahalakshmi	31	505267D	og5	1	2	3		2	2	2	2
175	Durga	23	837291F	og4	1	2	2	1	2	2	2	2
176	Sumathi	25	788580F	og5	1	2	3		2	2	2	2
177	Sasikala	21	765358F	0g4	1	2	3		2	2	2	2
178	Suriyabala	20	758455F	og5	1	2	3		2	2	2	2
179	Subadra	30	509464F	og3	2	2	1	2	2	2	1	2
180	vaishnavi	24	790530F	og4	1	2	3		2	2	2	2
181	Vishalachi	22	769342F	og4	2	2	3		2	2	2	2
182	Sathya	22	675020F	og5	1	2	2	1	2	2	2	2
183	Priya	23	565068D	og4	1	2	3		2	2	2	2
184	Selvi	24	903766F	og5	1	2	2	1	2	2	2	2
185	Lavanya	20	708218F	og5	1	2	3		2	2	2	2
186	Sravanthi	28	796105F	og5	1	2	1	1	2	2	2	2
187	Aghila	27	462308D	og4	1	2	2	1	2	2	2	2
188	Shoba.S	25	775121F	og4	1	2	3		2	2	2	2
189	Farzana Begum	20	716877F	og3	1	2	3		2	2	2	2
190	Brinda.M	29	361709B	og5	1	2	3		2	2	2	2
191	Hemamalini	24	277021F	og5	1	2	3		2	2	2	2
192	Kala	28	839763F	og3	1	2	3		2	2	2	2
193	Rajeswari	25	760897F	og3	2	2	2	2	2	2	1	2
194	Ranjini	24	855847C	og3	1	2	3		2	2	2	2
195	Vimala	40	334410F	og5	1	2	1	2	2	2	2	2
196	Gayathri	19	798012F	og5	1	2	1	1	2	1	2	2
197	Lavanya	25	903744F	og5	1	2	3		2	2	2	2
198	Kedhareswari	20	777902F	og3	1	2	3		2	1	1	2
199	Sindhu.A	24	697373f	og3	1	2	3		2	2	2	2
200	Rosaline	30	475491D	og4	1	2	3		2	2	2	2
201	Saraswathi	25	961435D	og5	1	2	3		2	2	1	2
202	Selvalakshmi	21	723722F	og3	1	2	1	2	2	2	1	2
203	Lakshmi Prasanna	27	983791D	og5	1	2	3		2	2	2	2
204	Devika	28	922262D	og3	1	2	1	2	2	2	2	2
205	Myvizhi	22	778651F	og5	2	2	1	2	2	2	2	2
206	Vijayalakshmi	26	746501F	og3	1	2	2	2	2	2	2	2
207	Sirajunnisa	22	601733F	og4	1	2	3		2	2	2	2
208	Lakshmi.B	29	749037D	og5	1	2	3		2	2	2	2
209	Swapna	27	673683D	og3	1	2	3		2	2	2	2
210	Komathi	26	855722D	og3	1	2	3		2	2	2	2
211	Arularasi	22	364309F	og3	1	2	3		2	2	2	2
212	Sangeetha	24	094203F	og5	1	2	3		2	2	2	2
213	Santhini	29	317171D	og5	1	2	3		2	2	2	2
214	Loganayaki.S	25	394011D	og5	1	2	3		2	2	2	2
215	Jayalakshmi	27	808587F	og5	1	2	2	1	2	2	2	2
216	Manimegalai	29	783365F	og5	1	2	3		2	2	2	2

217	Sandhyarani	29	766566F	og4	1	2	1	2	1	1	2	2
218	Beauty	30	694628F	og5	1	2	3		2	2	2	2
219	papitha	30	892928D	og3	1	2	3		2	2	2	2
220	jasmine Margret Mano	28	472658A	og3	1	2	1	1	1	2	2	2
221	Indumathi	24	692791F	og4	1	2	3		2	2	2	2
222	Nafeesa Gouse	26	760705F	og5	1	2	2	1	2	2	2	2
223	Namrata Reena	31	119284D	og5	1	2	3		2	2	2	2
224	Sabura.J	28	903742F	og5	2	2	3		2	2	2	2
225	Muneera	22	906320F	og3	2	2	2	1	2	2	2	2
226	Kalaivani	32	380131D	og3	1	2	3		2	2	2	2
227	Divya Aravindkumar	23	837671F	og3	1	2	3		2	2	2	2
228	Srinisha	19	771902F	og3	2	2	3		2	2	2	2
229	Umamaheswari	24	705200F	og3	1	2	3		2	2	2	2
230	Monisha	29	854464F	og3	1	2	3		2	2	2	2
231	Anitha	19	906322F	og3	1	2	1	2	2	2	2	2
232	Sangeetha	22	783468D	og4	1	2	3		2	2	2	2
233	Vimala	23	795665F	og5	1	2	3		2	2	2	2
234	Revathi	20	906347F	og3	2	2	3		2	2	2	2
235	Thilagavathy	31	834823F	og3	1	2	3		2	2	2	2
236	Shabana Yasmin	23	760554F	og4	1	1	2	1	2	2	2	2
237	Bhuvaneswari	27	228911F	og3	1	2	3		2	2	2	2
238	Shalini	24	702426F	og3	2	2	1	2	2	2	2	2
239	Geetha	31	698848F	0g3	1	2	2	1	2	2	2	2
240	Saranya	20	126372F	og3	1	2	3		2	2	2	2
241	Vasumathi	33	057942D	og3	1	2	3		2	2	2	2
242	Asha	27	650177D	og5	1	2	3		2	2	2	2
243	Usha	24	856947F	og5	1	2	2	2	2	2	2	2
244	Manjula	29	796173D	og5	1	2	3		2	2	2	2
245	Meena	25	908074F	og4	1	2	3		2	2	2	2
246	Lavanya	26	729672F	0g4	2	2	1	2	2	2	2	2
247	mumtaz	24	724572A	og3	1	1	2	1	2	2	2	2
248	Pattu	21	324945f	og5	1	2	3		2	2	2	2
249	Sonipriya	26	249788D	og5	1	2	3		2	2	2	2
250	Tapsira	20	136516B	og5	2	2	1	2	2	2	1	2
251	jayasree	21	722008F	og5	1	2	2	1	2	2	2	2
252	Pavithra	22	854816F	og5	2	2	1	2	2	2	1	2
253	Mujitha Banu	29	681310D	og5	1	2	3		2	2	2	2
254	Malin.N	25	818672F	og4	1	2	2	1	2	2	2	2
255	Priyanka22	22	873599F	og4	1	2	2	1	2	2	2	2
256	Guna	24	012960F	og4	1	2	3		2	2	2	2
257	Deepika	19	825063F	og3	1	2	3		2	2	2	2
258	Renuka	22	724366F	og5	1	2	3		2	2	2	2
259	Lakshmi Devi	22	000386F	og5	1	2	3		2	2	2	2
260	Priyadarshini	32	688060D	og3	1	2	3		2	1	2	2
261	Pavitra	22	854816F	og5	2	2	1	2	2	2	1	2
262	Anitha	22	113823F	og5	1	2	3		2	2	2	2
263	Bhuvanalakshmi	26	654059D	og4	1	2	3		2	2	2	2
264	Saranya	27	908714F	og3	1	2	3		2	2	2	2
265	Princy selva Mary	22	268030D	og5	1	2	3		2	2	2	2
266	Pratheepa	24	848501F	og3	1	2	2	2	2	2	2	2
267	Dharmadevi	34	421917f	og5	1	2	3		2	2	2	2
268	Ambikavathy	25	908728F	og3	1	2	2	1	2	2	2	2
269	Teena	29	577266C	og4	1	2	3		2	2	2	2
270	Aayisha Siddhiqua	21	716591F	og5	1	2	3		2	2	2	2
271	Porselvi Loganathan	27	867602F	og3	2	2	3		2	2	2	2
272	Yogavalli.R	30	794226F	og3	1	2	3		2	2	2	2
273	Aamira	23	761934F	og5	1	2	2	1	2	2	2	2
274	Rekha	26	744029F	og5	1	2	2	2	2	2	2	2
275	Hajira Banu	19	766705f	og5	1	2	3		2	2	2	2
276	Sasikala	32	961698C	og5	1	2	3		2	2	2	2

277	Vijayalakshmi	29	003968F	og5	1	2	3		2	2	2	2
278	Ezhilarasi.V	23	135555F	og5	1	2	3		2	2	2	2
279	Subhashree	26	774833F	og3	1	2	2	1	2	2	2	2
280	Punitha	27	895730F	og4	2	2	2	2	2	2	2	2
281	Sukanya.G	20	850783F	og4	1	2	2	1	2	2	2	2
282	Divya.B	23	874131D	og4	1	2	3		2	2	2	2
283	Rajeswari	21	911462F	og3	1	2	2	1	2	2	2	2
284	Bharathi	25	911463F	og3	1	2	3		2	2	2	2
285	Anitha	28	779660F	og3	1	2	3		2	2	2	2
286	Saritha	21	794709F	og3	1	2	2	1	2	2	2	2
287	Junaitha Banu	20	791814F	og5	1	2	3		2	2	2	2
288	Angel	27	007850G	og5	1	2	3		2	2	2	2
289	Sundari	28	175428C	og5	1	2	3		2	2	2	2
290	Malini.V	30	799864f	og3	1	1	1	1	2	2	2	2
291	Ezhilarasi	25	865719F	og3	2	2	3		2	2	2	2
292	Nathiya	24	746392F	og5	1	2	3		2	2	2	2
293	Kalpana	20	809718F	og5	1	2	3		2	2	2	2
294	Mashkura Noushin	22	776401F	og5	1	2	1	2	2	2	1	2
295	Rizwana	21	034553F	og4	1	2	1	1	2	2	2	2
296	Rekha	24	878762F	og3	2	1	2	1	2	2	1	2
297	Bimineni Jeeva	27	837175F	og5	1	2	1	2	2	2	2	2
298	Durga	26	307881F	og5	1	2	3		2	2	2	2
299	Sandhiya.K	23	845577F	og5	1	2	2	1	2	2	2	2
300	Divya Bharathi	24	861053F	og3	1	2	3		2	2	2	2
301	Vidhyakumari	28	846186F	og5	1	2	2	1	2	2	2	2
302	Saranya Bhoopalan26	26	864060F	og5	1	2	3		2	2	2	2
303	Riswana	26	675436D	og4	1	1	1	1	2	2	2	2
304	Dhivya Bharathi	23	179099F	og5	1	2	3		2	2	2	2
305	Sabeitha.A	27	760956F	og5	1	1	2	1	2	2	2	2
306	Divya	19	843274F	og3	2	2	1	2	2	2	2	2
307	Yogeetha	24	829862F	og5	1	2	3		2	2	2	2
308	Aaliya Parveen	26	803645F	og4	1	2	2	1	2	2	2	2
309	AshA	21	829387f	OG5	1	2	3		2	2	2	2
310	Gowri	27	204903F	og4	1	2	3		2	2	2	2
311	Nargis Nousheen	26	896050F	og5	1	2	3		2	2	2	2
312	Fathima	23	756117D	og5	1	2	3		2	2	2	2
313	Eswari	24	913903F	og4	1	2	3		2	2	2	2
314	Soniya	24	779971F	og4	1	2	3		2	2	2	2
315	Kalpana	29	869912D	og4	1	2	3		2	2	2	2
316	Shanti	28	286933F	og5	1	2	3		2	2	2	2
317	Mounika	22	834769F	og4	1	2	3		2	2	2	2
318	Madeena	20	797832F	og3	1	2	3		2	2	2	2
319	Kalayarasi	21	943008D	og3	1	2	3		2	2	2	2
320	Sudha	24	429696D	og3	1	2	3		2	2	2	2
321	Naziya Samreen	22	000992F	og4	1	2	3		2	2	2	2
322	Dharani	24	778888F	og3	2	2	1	2	2	2	2	2
323	Malathi	24	570106D	og5	1	2	2	1	2	2	2	2
324	Gomathy	29	148287F	og3	1	2	3		2	2	2	2
325	Jamuna Rani	20	351494f	og5	1	2	3		2	2	2	2
326	Shanti.M	27	849493D	og5	1	2	3		2	2	2	2
327	Jansi Rani	27	913960F	0g3	1	2	3		2	2	2	2
328	Nabeela Anjum	23	817935F	og5	2	2	1	2	2	2	2	2
329	Sivapriya	23	793604f	og5	2	2	1	2	2	2	2	2
330	Saraswathi	19	807370F	og5	1	2	1	2	2	2	1	2
331	Ramya	19	031540G	0g5	1	2	3		2	2	2	2
332	Amala Punithakumari	23	870374A	og5	1	2	3		2	2	2	2
333	Jansi Rani	25	254579D	og4	1	2	3		2	2	2	2
334	Azhwar Nachiyar	25	899956F	og4	2	2	2	1	2	2	2	2
335	Pavithra	24	748925D	og5	1	2	3		2	2	2	2
336	Priyanka	25	831605F	og5	1	2	3		2	2	2	2
337	Tahira	21	770650F	og3	1	2	3		2	2	2	2

338	Priya	20	899806F	og4	1	2	2	2	1	2	2	2
339	Gayathri	28	705235D	og5	1	2	2	1	2	2	2	2
340	Kavitha.K	30	878301F	og5	2	2	3		2	2	2	2
341	Devi.P	27	074286F	og5	1	2	3		2	2	2	2
342	Sultana	25	812289F	og5	1	2	3		2	2	2	2
343	Lalitha.R	24	829789F	og5	1	2	3		2	2	2	2
344	Anitha	25	433868D	og3	1	2	3		2	2	2	2
345	Banupriya	24	650139F	og3	1	2	2	1	2	2	2	2
346	Poornima.P	27	510174F	og3	1	2	3		2	2	2	2
347	Dhanalakshmi	26	010432G	og5	1	2	2	1	2	2	2	2
348	Kershial.V	25	826521F	og3	1	2	3		2	2	2	2
349	Bhuvaneswari	25	893686F	og4	1	2	2	1	2	2	2	2
350	Kalaiselvi	28	938161D	og4	1	2	1	1	2	2	2	2
351	Komathi.R	26	647385F	og3	1	2	3		2	2	2	2
352	Amuda	28	224390F	og5	1	2	3		2	2	2	2
353	Sarala	27	335070F	og4	1	2	3		2	2	2	2
354	Sangeetha	25	020803G	og5	1	2	2	1	2	2	2	2
355	Malathi	36	882260F	og3	1	2	2	1	2	2	2	2
356	Revathi	28	827075F	og4	1	2	3		2	2	2	2
357	Veena	26	790330F	og4	1	1	2	1	2	2	2	2
358	Jeeva	34	147582F	og4	1	2	3		2	2	2	2
359	Rehana Begum	32	850396D	og4	1	2	3		2	2	2	2
360	Anitha	26	782874F	og5	1	2	2	2	2	2	2	2
361	Kubra	21	040023G	og5	1	2	1	1	2	1	2	2
362	Sandhiya	20	794947F	og5	1	2	3		2	2	2	2
363	Jayabharati	25	299233F	og3	1	2	3		2	2	2	2
364	Selvi	22	916746F	og3	1	2	1	3	1	2	2	2
365	Saraswathi.K.G	30	646258D	og5	1	2	3		1	1	2	2
366	Supriya	27	791955F	og3	1	1	3		2	2	2	2
367	Renuka	23	800831F	og5	1	1	2	1	2	2	2	2
368	Khataijul Kubra	21	783985F	og4	1	2	1	1	1	1	1	2
369	Swetha	26	714513B	og4	1	2	3		2	2	2	2
370	Catherine Sujatha	27	480533C	og5	1	2	3		2	2	2	2
371	Jayanthi	34	035718G	og3	1	2	3		2	2	2	2
372	Sumalatha	27	796770F	og4	1	2	1	2	2	1	2	2
373	Saranya.D	25	769888F	og5	2	2	1	2	2	1	1	2
374	Gowri	25	196317F	og4	1	2	3		2	2	2	2
375	Afrin Banu	23	009270F	og4	1	2	1	2	1	2	2	2
376	Subhasree.K	28	884400F	0g5	1	2	3		2	2	2	2
377	Reena	28	916761F	og3	1	2	3		2	2	1	2
378	Nirmala	28	941940D	og3	2	1	1	2	2	1	2	2
379	Sudha	24	916711F	og5	1	2	3		2	2	2	2
380	Saritha	24	916758F	og4	2	2	2	2	2	2	2	2
381	Praveena	29	390868D	og5	1	2	1	1	2	1	2	2
382	Nadhiya	21	164639F	og5	1	2	3		2	2	2	2
383	Subhashini	26	830729F	og4	2	2	2	1	2	2	2	2
384	Prabhavathy	29	226177F	og3	1	2	3		2	2	2	2
385	Banupriya	21	865418F	og5	1	2	3		2	2	2	2
386	Kalpana.K	26	829698F	og3	2	2	3		2	2	2	2
387	Vasugi	21	093294F	og4	1	2	2	1	2	2	2	2
388	Rizwana Sultana	19	031197F	0g5	1	2	1	1	2	2	2	2
389	Bakkiya Lakshmi	26	812062F	og3	1	2	3		2	2	2	2
390	Abitha	26	839140F	og4	2	2	2	1	2	2	1	2
391	Aruna Naveen	31	947065C	og5	1	2	3		1	2	2	2
392	Nirosha.K	24	868418F	og4	1	2	3		2	2	2	2
393	Hemamalini	27	827045F	og5	1	1	1	1	2	2	1	2
394	Amrin Taj	22	989780D	og4	1	2	3		2	2	2	2
395	Sasi.P	33	802680F	og4	1	2	1	2	2	2	1	2
396	Durgadevi	22	125751F	og4	1	2	3		2	2	1	2
397	Abirami	27	803687F	og5	1	2	1	1	2	2	2	2
398	Niranjana	25	331225F	og5	1	2	3		2	2	2	2
399	Dheepika	23	880829F	og5	1	2	3		2	2	2	2
400	Areena Banu	29	854185F	og5	2	1	1	2	2	2	2	2